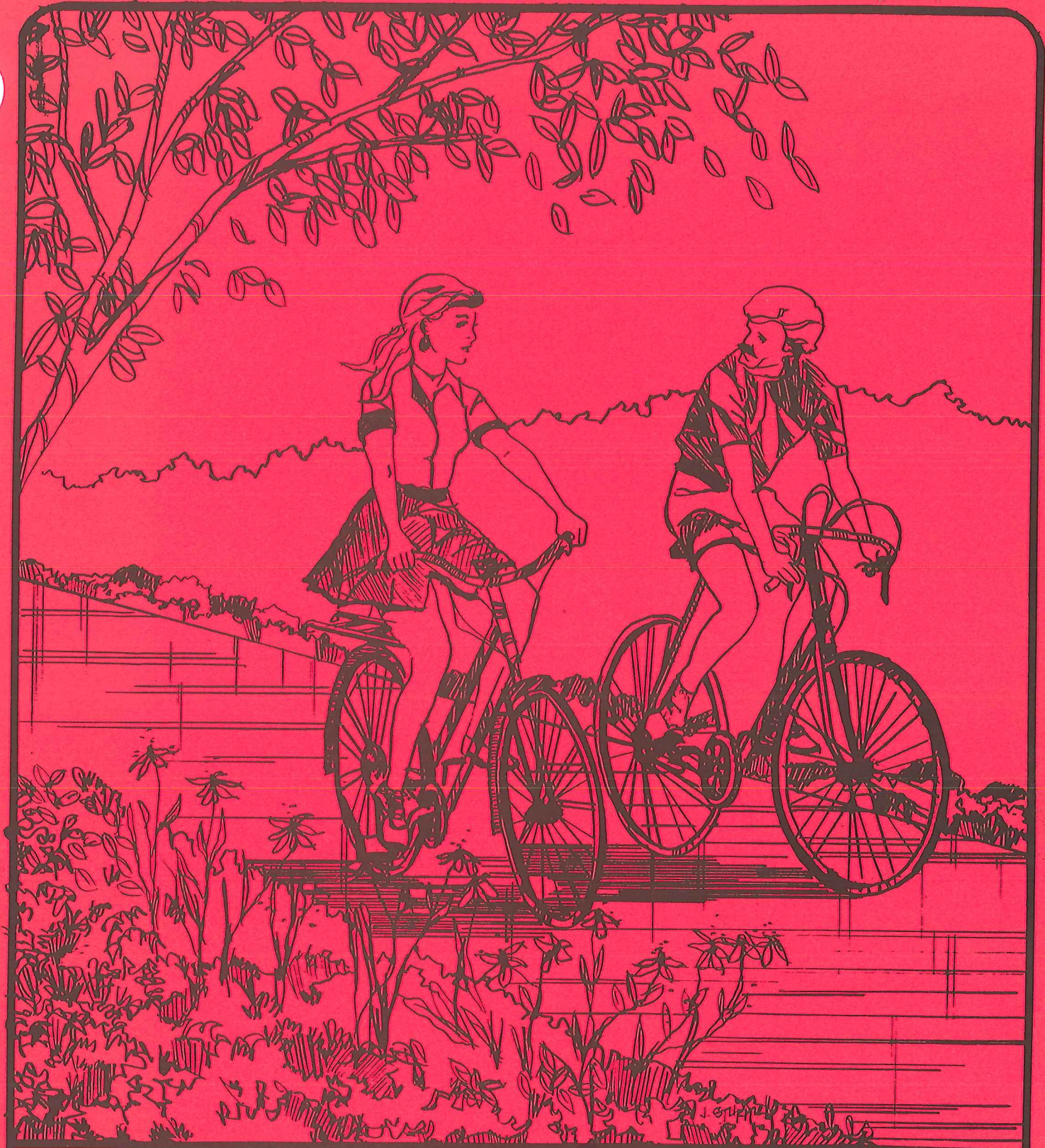


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Master Plan For

The Gateway Segment

Minnesota Wisconsin Boundary Trail 1986



A M A S T E R P L A N F O R T H E
G A T E W A Y S E G M E N T

of the

Minnesota-Wisconsin Boundary State Trail

An addendum to the Master Plan for the
Minnesota-Wisconsin Boundary State Trail

in fulfillment of the requirements of

Minnesota Statutes 86A.09
Minnesota Statutes 85.015, Subdivision 14

Minnesota Department of Natural Resources
Trails and Waterways Unit
Trail Programs Section
Saint Paul, Minnesota

October 1985

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FORWARD

This document is an addendum to the master plan for the Minnesota-Wisconsin Boundary State Trail, which was published in 1983. The Boundary Trail plan describes a state trail which extends between Oakdale and Duluth. A trail segment connecting Saint Paul and Oakdale was acquired in 1984 and was named the Gateway Segment of the Boundary Trail. Since the Gateway Segment was acquired and planned separately from the rest of the Boundary Trail, a separate master plan has been prepared for it which builds on and complements the Boundary Trail master plan.

This master plan for the Gateway Segment of the Minnesota-Wisconsin Boundary State Trail was prepared in conformance with Minnesota Statutes 86A.09, subdivision 1, which requires, with certain exceptions, that a master plan be prepared for each authorized unit in the Minnesota Outdoor Recreation System. The purpose of the plan is to describe how the trail will be constructed, operated, and maintained. The primary author was

Bill Lynott, Trail Planner
Trail Programs Section
Trails and Waterways Unit

The Department of Natural Resources (DNR) wishes to thank those DNR personnel, representatives of state and local units of government, trail users, and private citizens who assisted in the planning effort which led to this plan. Their contributions were of considerable aid in the effort to produce a quality document.

INTRODUCTION

ADMINISTRATIVE SETTING AND ROLE

Since the passage of the Outdoor Recreation Act (ORA) of 1975 (Minnesota Statutes 86A), Minnesota has had an Outdoor Recreation System, composed of 11 different types of outdoor recreation facilities. State Parks, State Wildlife Management Areas and State Forests are examples of component units in the system, each of which has a distinct role to play in carrying out the ORA's mandate to make available to Minnesotans the abundant opportunities for outdoor recreation provided by the unique natural, cultural and historic resources of the state.

State Trails collectively are another component of the Minnesota Outdoor Recreation System. In terms of roles played by various ORA units in satisfying the recreational needs of Minnesotans, state trails have the ability, unique among the ORA units, to portray the natural, cultural and historic ambience of those parts of Minnesota through which they pass against the backdrop of the present cultural condition of the landscape, and to do this in a recreational travel setting. It is the trails' linearity which makes this possible; the trail user proceeds from point to point and the trail he/she follows, if properly aligned, planned and developed, exposes him/her to a constantly changing diorama which juxtaposes a feel for the rhythm of the land, the area's history, the natural setting, and the present-day cultural circumstances in an understandable and satisfying way.

It is to provide Minnesotans with the opportunity to experience the various faces of Minnesota in this way that the Minnesota DNR has divided the state into 13 disparate recreational landscapes, each offering the public a unique combination of recreational experiences. The DNR is in the process of creating the Explore Minnesota Trail system, consisting of two-day, overnight length trail experiences located in the various landscapes thus identified. The DNR's State Trails will be a part of this system. The system's purpose is to provide recreational travel opportunities which highlight those outstanding scenic, recreational and interpretive attributes which are unique to the various landscapes of the state.

In 1982 planning was completed and a master plan written for the Minnesota-Wisconsin Boundary State Trail, a 235 mile recreational facility from Oakdale to Duluth. The Boundary Trail master plan made reference to the desirability of extending the Boundary Trail into Saint Paul. The DNR subsequently acquired a 7.86 mile abandoned railroad grade which connects the Oakdale end of the Boundary Trail with the center of Saint Paul (Figure 1). This acquisition is referred to as the Boundary Trail's Gateway Segment, and is the means by which the Boundary Trail ultimately extends into the center of Saint Paul and connects the two largest metropolitan areas of the State. Because of its length the Boundary Trail, of which the Gateway Segment is a part, passes through several of the identified recreational landscapes. The Gateway Segment itself lies entirely within the landscape known as the Twin Cities Metro Area.

The Gateway Segment begins near the intersection of Maryland Avenue and I-35E in Saint Paul and extends northeasterly through Maplewood and

North Saint Paul, connecting with the Boundary Trail at I-694 in Oakdale, and it is located in Ramsey and Washington counties (Figure 1). For the most part this is a highly urbanized district, and the trail passes through areas of high residential density with localized pockets of commercial and industrial development (Figure 2). It is, however, a unique feature of this railroad grade that landforms and vegetation interact to create a sense of remoteness and quiet over much of its length. Many stretches of the trail pass through wooded areas in cuts and on embankments where the ambience appears quite rural, though the juxtaposition of these features with residential neighborhoods and commercial/industrial centers maintains the sense of a suburban atmosphere. The trail thus represents an excellent opportunity to bring top quality State Trail recreational opportunities close to home for half of the state's population.

Department of Natural Resources' research shows that facilities such as the Gateway Segment are in high demand. The 1985 version of the State Comprehensive Outdoor Recreation Plan (SCORP) (DNR Office of Planning 1985: 5.033) calls for state acquisition of abandoned railroad grades in urban areas to be used, among other things, for ski-touring and bicycle trail development.

Available evidence indicates that land-based recreational pursuits such as trail activities are close to home activities for many Minnesotans. According to SCORP, bicycling, one such activity, is projected to experience the greatest increase in participation. Walking, hiking and ski-touring will also increase. Further, trails were among the most requested facilities in the SCORP demand surveys.

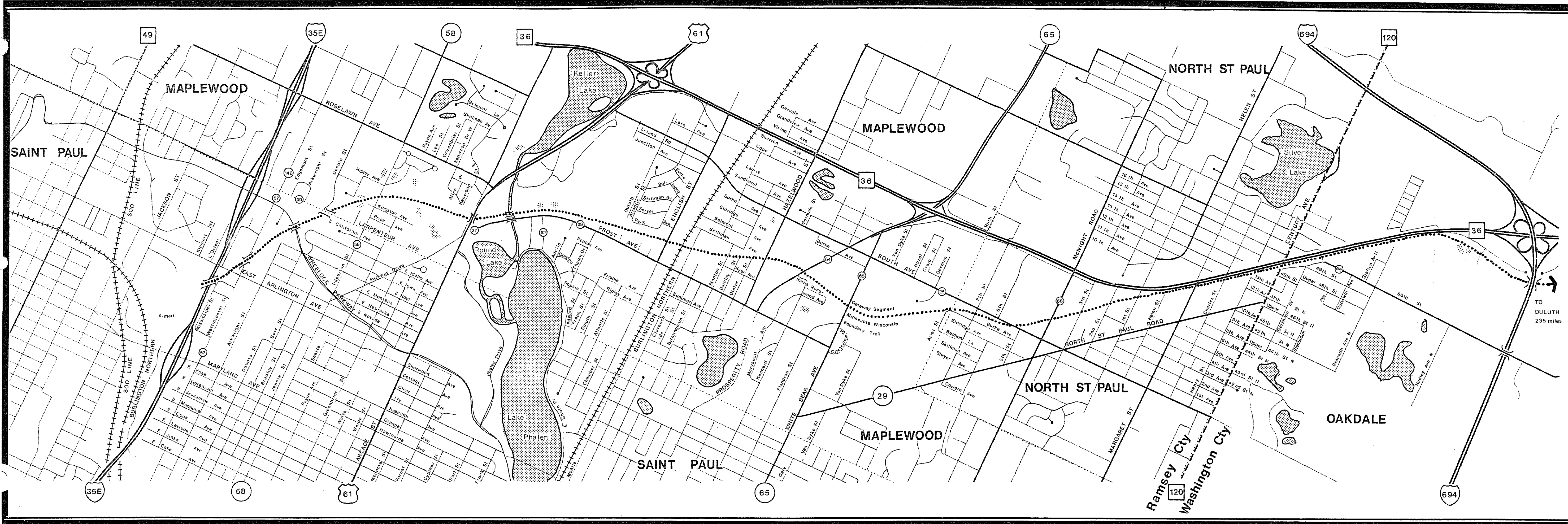


Fig. 1
The Gateway Segment

GATEWAY SEGMENT

KEY

- GATEWAY SEGMENT
- - - - - CITY LIMITS
- COUNTY BOUNDARY

NORTH

Feet
0' 1000'

Miles
0 .1 .2 .3 .4 .5

TO DULUTH
235 miles

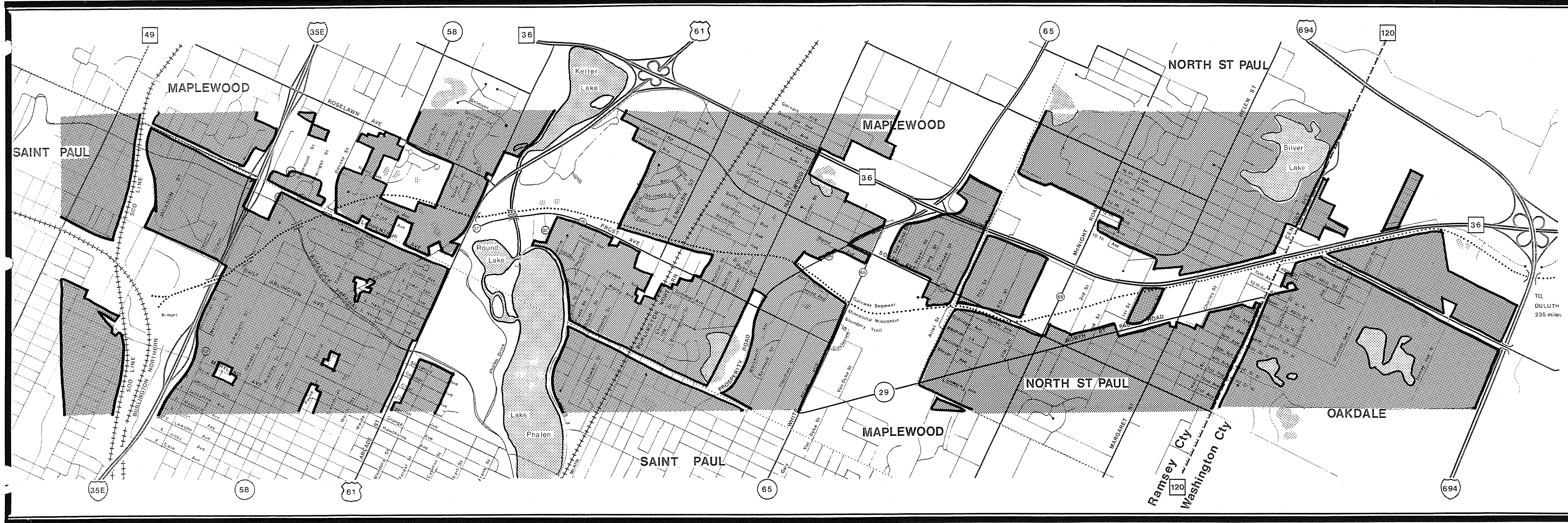
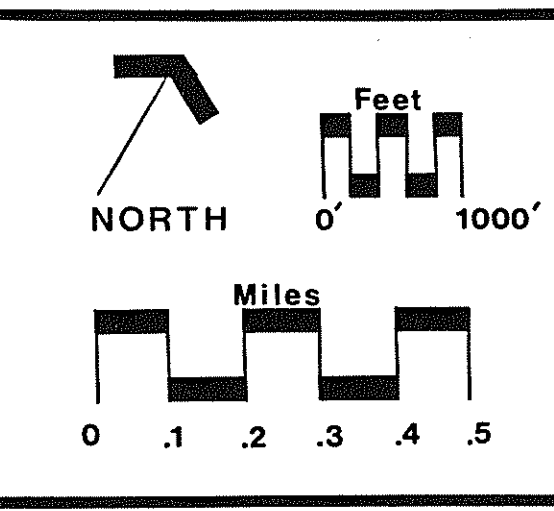


Fig. 2
Residential Areas Along
The Gateway Segment

**GATEWAY
SEGMENT**

- KEY**
- GATEWAY SEGMENT
 - CITY LIMITS
 - COUNTY BOUNDARY



The establishment of a state trail fulfilling these needs in a highly populated area goes to the heart of needs identified by research.

The opportunity also exists to use this State Trail to impart to trail users a sense of the region in which the trail lies, a primary aim of the DNR's statewide Trail Plan. SCORP also recommends this (p. 5.033). People who use this trail will come away with an understanding of the physical, cultural, and historical nature of the region in which it lies -- an important facet of State Trail recreation as envisioned by the DNR.

GOAL AND OBJECTIVES

The DNR's goal for the Gateway Segment is as follows:

To extend the Minnesota-Wisconsin Boundary Trail into the City of Saint Paul, thereby completing a direct trail connection between Saint Paul and Duluth, and to provide recreational, commuting, and greenspace opportunities to Minnesota residents.

The fulfillment of this goal will be advanced by achievement of the following objectives:

1. Extend the Minnesota-Wisconsin Boundary State Trail into Saint Paul and provide a gateway from Saint Paul to Washington County recreation opportunities.
2. Encourage local units of government to develop additional connections to the trail.
3. Provide high quality trail experiences to designated user groups.
4. Develop the total recreation potential of the trail right-of-way.
5. Provide opportunities for users to understand the region's cultural and natural resources.
6. Provide an optimum mix of use patterns and user groups.

7. Develop an interpretive plan and program which will cover this trail as well as the previously acquired Soo Line right-of-way.
8. Minimize danger to users.
9. Beneficially integrate the trail into the surrounding environment.
10. Make enforcement as easy as possible.
11. Make the trail as maintenance-free as possible while still providing the high quality recreational experience expected of a Metro Region state trail.
12. Preserve a representation of flora and fauna native to the area.
13. Provide commuting opportunities.
14. Comply with overall goals of the State Trail Program.

PUBLIC INVOLVEMENT

INTRODUCTION

Opportunities for the public to express concerns and make recommendations have always been a part of the DNR's trail planning processes. The DNR considers contacts with its clientele to be an essential component of trail planning, and it allots considerable staff time and other resources in its efforts to make and develop those contacts. In the course of planning the Gateway Segment, DNR personnel utilized public meetings, media articles and press releases, paid advertisements, contacts with private individuals, elected officials and representatives of government agencies, presentations before civic groups, and direct mailing in order to remain in touch with the public. Survey research upon which SCORP was based was also consulted.

The utilization of the public as a resource in trail planning does, however, involve certain difficulties. The public is a heterogeneous group whose needs and desires are often internally in conflict. One person or group may desire one thing from a trail, another person or group quite another. While it may appear axiomatic that one trail can not possibly serve everyone's expectations, the inherent validity of this fact is sometimes lost in the rhetoric as various segments of the DNR's clientele seek to advance their respective points of view.

The diversity of requirements inherent in the public's desire for trail recreation requires a corresponding diversity in the opportunities the DNR provides. The DNR offers several different types of trail

recreation options, and each type is often further refined and constrained by the trail's location, terrain, and available resources. It is important to remember that if one trail does not serve the particular needs and desires of a certain segment of the public, another in the vicinity probably does.

State Trails are conceived first and foremost as multi-use facilities which serve the long-distance recreational and commuting traveler. Other uses of the trail corridor which do not conflict with this primary function are desirable and to be implemented where possible. Planning for State Trails is also considerably influenced by applicable laws and regulations and, as a practical matter, by the attitudes and needs reflected by those who live near them.

State Trail planning is, then, a complex undertaking. It includes elements of publicly-expressed preference, funding limitations, legal constraints, construction and maintenance problems, past experience, and professional judgement. All must be considered, all are important. It is unlikely that any one factor will clearly point out that ultimate direction which will best serve the public interest. And it is just as unlikely that the ultimate direction selected will completely satisfy all concerned, although this is the goal and every reasonable effort is made to achieve it.

PUBLIC PLANNING ELEMENTS

Planning for the acquisition of the abandoned Soo Line railroad grade actually began in 1981. The planning process for the Minnesota-Wisconsin Boundary State Trail was nearing completion, and the

plan noted that extension of that trail into Saint Paul proper would be highly desirable. At about that time the railroad company made known its plans to abandon what is now the Gateway Segment.

Ramsey County monitors all railroad abandonments within its borders, and, when the latter one was announced, immediately convened a study group of representatives from each unit of government crossed by the abandoned line. The Minnesota Department of Transportation (Mn/DOT or DOT) and the DNR were also represented. The purpose of this group was to study various scenarios for productive re-use of the railroad grade and to work together to assure that it did not become a "no-man's land," the responsibility of no one, used for illegal dumping and other uncontrolled public nuisances.

It soon transpired that most of the local units of government were interested in various parcels of land within the right-of-way for street widening, utility crossings, and so on. However, none of the affected local units found it feasible to acquire the entire grade, which would be necessary if the "no-man's land" scenario outlined above were to be avoided.

At this point the DNR was asked to actively participate in the acquisition since it was clear that the DNR's State Trail Program had the potential to resolve the matter. The DNR had bought railroad grades for trails in the past, and had subsequently resold surplus land not needed for trail purposes to others at public auction. Legislation was subsequently drafted (Minnesota Statutes 85.015, subdivision 14) providing authorization for acquisition and formalizing the relationship among the group members, who later became known collectively as the

Gateway Segment Task Force. The Task Force has continued to meet as needed in order to discuss questions of mutual concern as planning has proceeded.

The public has been involved in other ways in planning the Gateway Segment. A number of press releases and other newspaper articles have outlined progress on the project and invited the public to contact DNR personnel to discuss it further. A number of individuals availed themselves of this opportunity. A 480-name mailing list was used to send planning documents and meeting announcements to interested parties. The public was invited to several public meetings to discuss planning issues, ask questions, and make recommendations, and was asked to review all major planning documents.

RELATIONSHIPS WITH LOCAL UNITS OF GOVERNMENT

The Gateway Segment Task Force, mentioned in the previous section, has been a key feature of the planning process from the beginning. The Gateway Segment enabling law (Minnesota Statutes 85.015, subdivision 14) specifically provides for consultation between the DNR and the affected local units of government in the course of the planning process. This consultation has continued on an as-needed basis as the planning has proceeded.

Contacts with the local units have identified a number of concerns of mutual interest involving the relationship of the trail to the various communities it passes through. Most of these involve road and utility improvements which require use of the Gateway Segment right-of-way. In most cases, discussions between the DNR and the local

agencies have resulted in agreements which allow the local unit to proceed and safeguard the DNR's interests in providing a quality trail. Discussions will continue on the few remaining items with the aim of arriving at a mutually agreeable resolution in each case. Specifics are provided in the section of the plan entitled Right-Of-Way Modifications.

A key document in maintaining good relationships with the local units of government is the DNR's policy for road crossings. There are numerous such crossings along the trail, and the DNR's relationship with road authorities at these locations needs to be carefully defined. The main reason for this need is that when road authorities intend to perform road construction or improvement work where the road crosses the trail, questions arise regarding the need for the authority to comply with the requirements of 49 U.S.C. 1653(f), commonly known as the 4(f) requirements. This refers to that section of the Federal Aid Highway Act of 1968 which requires that road authorities not use publicly owned recreational land for federally funded road projects unless there is no reasonable alternative and all possible planning is done to minimize adverse effects. In the case of the Gateway Segment, the Federal Highway Administration has ruled that 4(f) does not apply, due to the clear intent of the state, as indicated in the enabling law, to relieve road authorities of this responsibility. As a result, 4(f) reports will not be necessary for road projects which affect the Gateway Segment.

Research into original deed provisions and other documentation indicates that the railroad was in place prior to the existence of most of the transportation ways which cross it. The only exceptions which have come to light so far are the Saint Paul Water Commission's water supply pipe which crosses the trail at its extreme west end, and the

Burlington Northern Railroad which crosses the trail at Gloster Junction in Maplewood. By-and-large, the streets and highways which cross the trail were built later. While various statutes and agreements have surfaced which give the road authorities certain rights at the crossings, the underlying ownership of the land has been in the railroad from the beginning, and it was passed on to the DNR at the time of acquisition.

But the situation is by no means clear; questions have arisen regarding who is supposed to maintain crossings and what the respective rights of the DNR and the road authorities are when the latter contemplate street improvement work. Resolution of these and other pertinent questions will be based on the DNR road crossing policy.

BENEFICIAL INTEGRATION

The concept of beneficial integration refers to the favorable incorporation of the trail and its benefits into the essential fabric of the communities through which it passes. The trail should provide facilities and services which benefit the communities, and in turn take advantage of goods and services which the communities can offer. Trail users may be looking for such disparate items as food, lodging, equipment rental, babysitting, shuttle services, participation in community events and opportunities to acquaint themselves with local history and architecture. Clearly, the towns can benefit from this situation. The challenge, then, is to plan ahead so that various amenities and services available in every town are made available to trail users in ways which are convenient to use and cost-effective to supply. Trail users can, on

stopping at the local trail information kiosk, be informed as to where the churches, cafes, motels and hospitals are, what local festival is going on, where and when the high school play is being performed. The city may, on the other hand, wish to make use of the landscaped green space of the right-of-way in town for outdoor summer theater, a farmer's market, or Easter egg hunts. In beneficially integrating trail and community, the only limits are those of imagination. Communities are urged to present their ideas to the DNR to aid in achieving the goal of beneficial integration.

The relationship between the DNR and local units of government in beneficially integrating trail and community must be carefully defined. Since one of the objectives of the Gateway Segment planning process is to develop the total recreational potential of the DNR-owned right-of-way, the DNR encourages innovative planning by all affected parties to make this objective a reality. The DNR is prepared to make land available and in other ways cooperate with local units of government so that needed developments at the local level can be facilitated. At the same time it must be recognized that the DNR is not a municipal recreation provider. Nor is the DNR empowered to develop facilities on land it does not control. Therefore, for example, connecting spur trails to locations remote from the right-of-way and facility development for strictly local use within the right-of-way are both local unit responsibilities. On the other hand, the DNR can and should be involved in developments which will benefit its clientele, the trail users, as well as others.

The cities through which the trail passes offer good possibilities for enhancement of the recreationist's experience. Partnerships should

be sought between the DNR and local units of government by which local recreational facilities can be made available to trail users. Signed routes or connections to locally operated swimming beaches, playground areas, picnic areas, historic sites and other points of interest are to be encouraged. Similarly those services such as repair shops, lodging and food service which are available should be highlighted. Bona fide needs on the part of local units of government for land within the trail right-of-way for beneficial public purposes will be accommodated by the DNR to the extent feasible. The presence of the trail can and should be a benefit to the cities and their residents.

SUMMARY

The DNR's goal in planning state trails is to serve the public interest by providing facilities which fulfill the public's need for top quality recreational opportunities. Over the years the DNR has developed a feel for what the public is seeking in this regard, but public perceptions and needs are constantly evolving. Therefore, close coordination with Minnesota residents and their representatives remains a critical component of the trail planning process. Accordingly, the DNR will continue to involve the public as appropriate in matters involving the Gateway Segment.



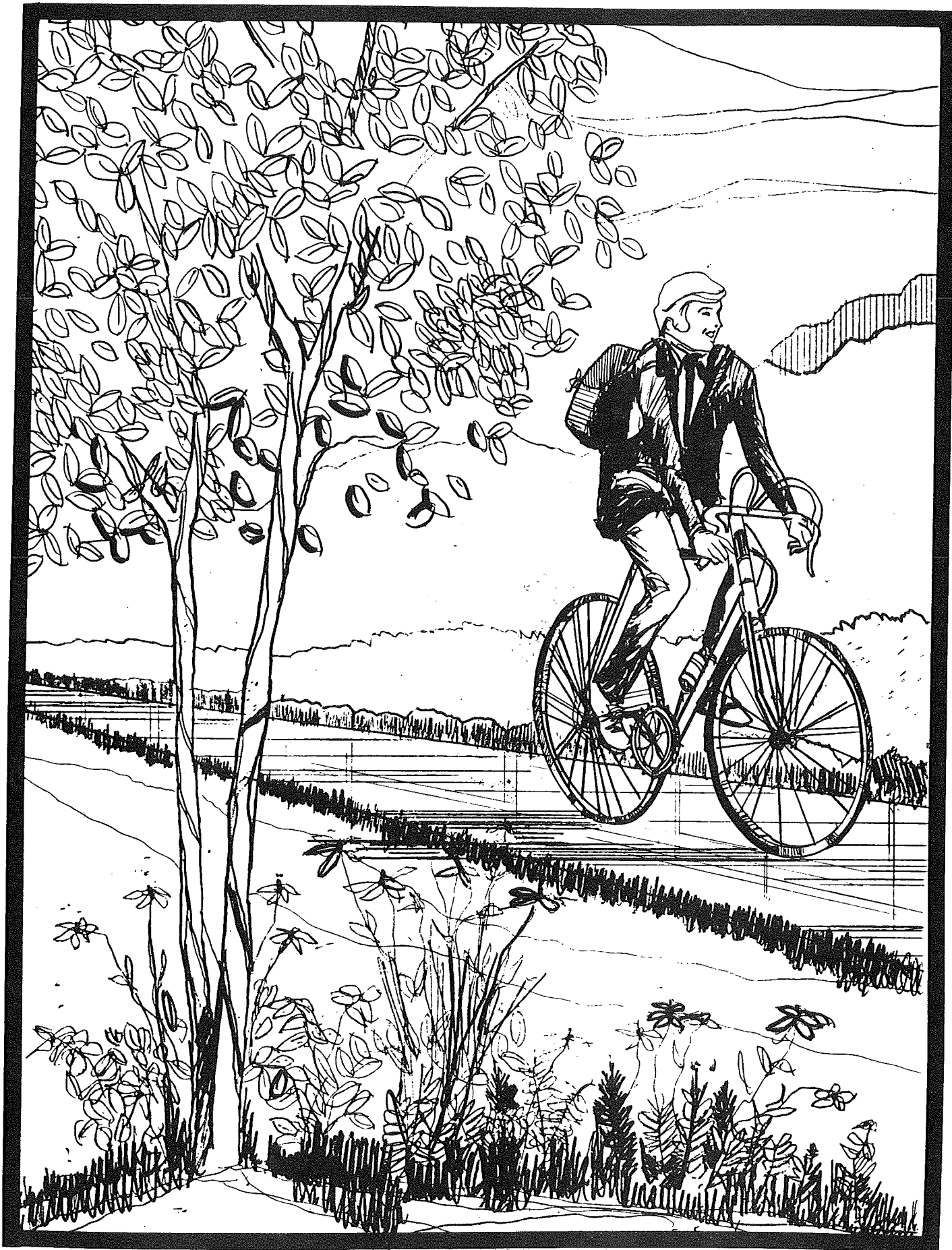


Figure 3 Commuting On The Gateway Segment

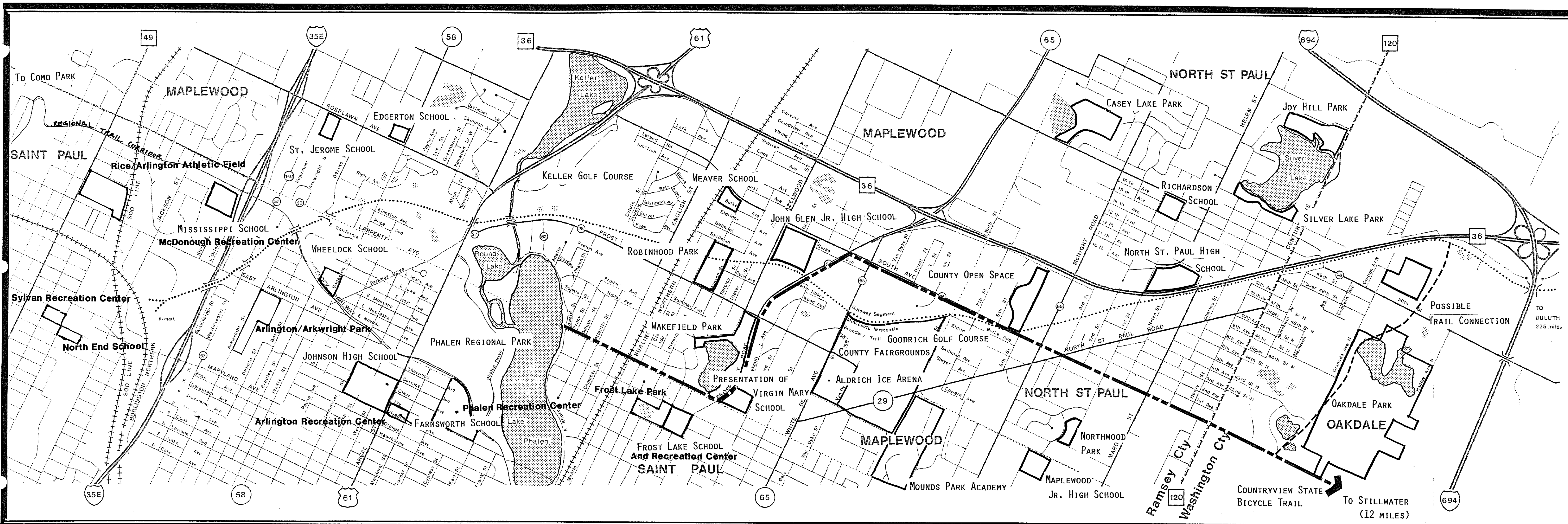
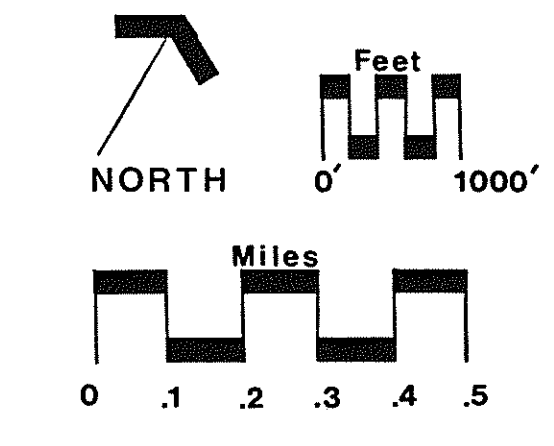


Fig. 4
**Regional Recreational
 Facilities Near The
 Gateway Segment**

**GATEWAY
 SEGMENT**

- KEY**
- GATEWAY SEGMENT
 - - - - - CITY LIMITS
 - - - - - COUNTY BOUNDARY



those who use such facilities by offering a largely off-road means of access. Development of the Gateway Segment as urban green space will enhance the experience of city dwellers in making use of these facilities.

The potential also exists for gearing the interpretive program on this trail in part toward environmental education initiatives in the local schools, several of which are located close to the trail. In keeping with provisions of the statewide DNR Trail Plan and SCORP, state trails are to impart to trail users a sense of the region, both by means of interpretive signs and facilities and by use of views and overlooks which together make manifest the forces which shaped the region and the various ways in which man has responded to and made use of what has resulted. Proper interpretive treatment of these phenomena could significantly enhance the educational environment for area students. Since a number of nature centers exist in the area which provide environmental education to the public, coordination with them to avoid duplicative efforts is necessary.

In its role as the Boundary Trail's gateway into the Twin Cities, the Gateway Segment forges a major State Trail link between Minnesota's two largest metropolitan areas. It improves off-road recreational trail access for major non-motorized user groups to those resources offered by the Boundary Trail. In particular, Twin Cities bicyclists will now have a direct link to a number of state and local parks, forest areas, and historic river towns in the St. Croix Valley. Whether the experience desired involves a remote camping trip or a weekend stay at a historic bed and breakfast inn, the Gateway Segment affords access to the opportunity.

Cross-country skiers and bicyclists will find that the trail can be used for day trips to Phalen Park in Saint Paul, which has a trail system of its own. Skiers, additionally, will find the trail possesses many of the attributes of rural facilities while remaining close to home; several stretches, being wooded and away from street traffic, have an air of remoteness and quiet which people will find appealing in the midst of the city. Many people will take advantage of this fact, if only because the trail passes through so many extensive residential districts. This will also result in a large amount of incidental use. People with errands to run, joggers, and recreational walkers are expected to use the segment in large numbers.

Horseback riding is not expected to be a major use on the Gateway Segment, but the amount of such use will undoubtedly be affected by the presence of significant horseback riding on the railroad grade east of Interstate 694 (I-694). The parking lot at the east end of the Gateway Segment will be an origination point for those planning to ride east into Washington County on the Boundary Trail, and a destination for riders coming west.

Snowmobiling will also not be a major use on the Gateway Segment, in this case because the enabling statute provides that the trail will be managed primarily for non-motorized uses. However, in order to accommodate requests from Oakdale snowmobilers for continuation of the traditional direct access to the Washington Country trail system, the DNR will permit snowmobile use of the trail in the immediate vicinity of the I-694 underpass. Snowmobilers must obtain permission from adjoining landowners to use land outside the trail corridor to approach the vicinity of the underpass. The DNR will permit use of the underpass to

get past I-694 only if so doing will connect legitimate snowmobile use areas. Snowmobilers will be required to present a plan encompassing these elements to the DNR before approval for use of the underpass will be granted. Authorization to use the underpass will be withdrawn if the City of Oakdale bans snowmobiling.

This trail, because of its location, and if it is properly developed and well managed, will probably attract a high degree of use in a relatively short time. This use will, of course, be predominantly local. Long distance trail use levels will be considerably dependent upon the development schedule for the Boundary Trail and promotional efforts on behalf of that trail by the DNR and others. The DNR will engage in a number of promotional and informational efforts as the trail becomes more developed, as provided in the Boundary Trail Master Plan.

DEVELOPMENT SPECIFICATIONS

1. Overview

An important fact relating to the Gateway Segment's development schedule is that the Segment comprises approximately half of a 20-mile railroad grade, all of which has now been acquired by the DNR for development as part of the Minnesota-Wisconsin Boundary State Trail. (The portion of this railroad grade east of I-694, the Washington County segment, was included in the master planning for the Boundary Trail in 1981.) Because this railroad grade is a continuous trail opportunity between Saint Paul and Pine Point Park in Washington County, the DNR prefers to develop the entire stretch more or less simultaneously, if funding is available.

The Gateway Segment's identity (and, by extension, that of the entire railroad grade) as a discrete trail opportunity will probably overshadow its role as a segment of the Minnesota-Wisconsin Boundary State Trail in the near term, and will almost certainly remain a significant factor in the operation and maintenance phase even after the Boundary Trail is fully developed and in use. The Gateway Segment's location in an area of high population density and the resulting high degree of use and visibility will work to assure this.

This expected high level of use in an urban setting leads to the recommendation that the majority of the Gateway Segment needs to be developed and maintained in a manner different from most of Minnesota's other state trails which are situated in rural surroundings and on which per-mile use will ultimately be lower. The Gateway Segment should be a developed, manifestly overtly managed facility, capable of withstanding the heavy use which is expected to develop on it, and should, in fact, by its well-kept appearance, encourage people to enter and make use of it. This concept includes a 12-foot wide asphalt treadway except where site conditions do not permit it, the establishment of waysides every several miles, shrub plantings for beautification and to attract non-game wildlife, a strong litter management program, and encouragement of local involvement in right-of-way beautification through volunteer activities. While the DNR is limited in the amount of development and maintenance it can undertake itself, there is no limit to what local groups and volunteers, working with DNR encouragement and advice, can accomplish. With DNR concurrence, local entities can plant and maintain vegetation, keep open areas mowed, establish and maintain interpretive facilities, stage community events in the right-of-way, pick up litter,

and publicize the trail. Those with ideas should be encouraged to contact the Regional Trails and Waterways Coordinator.

It should be recognized that the railroad grade as a whole will likely be viewed by the public as a discrete entity. Therefore, development should seek to present a smooth transition from the bustling Saint Paul downtown area to the rural setting of Pine Point Park. As it happens, the trail passes most notably from an urban to a rural setting at approximately the point where it passes beneath I-694, i.e., the point where the Gateway Segment ends. Special care should be taken that the trail grade easily from town to country. For example, the urban greenspace style of development called for over most of the trail's length should give way gradually in the Oakdale vicinity to the more natural appearance characteristic of the Washington County segment.

2. Development Summary

- Surface with asphalt.
- Develop parking lots at the western and eastern ends of the Gateway Segment.
- Provide for grade separation between the trail and other thoroughfares where necessary and feasible.
- Develop trail wayside rest areas in Maplewood and North Saint Paul.
- Establish a treadway connection between the Gateway Segment and the Phalen-Keller Park trail system.
- Work cooperatively with the City of Saint Paul with the goal of establishing a connection between the trail and Wheelock Parkway.
- Work with the Burlington Northern Railroad to establish a crossing over the latter's tracks in Maplewood.
- Establish a separated-grade crossing at White Bear Avenue.
- Work with the Maplewood Department of Community Services to develop a park-like setting and wayside between Robin Hood Park and the Gladstone School grounds.
- Consult with the City of Maplewood regarding a trail connection to the new Maplewood City Hall.

- Develop an urban green space ambience in North Saint Paul along Highway 36, unless consultations with North Saint Paul and DOT show a different scenario to be necessary.
- Work with DOT to establish safe trail crossings at the intersections of Margaret and Charles streets and Century Avenue with Highway 36.
- Provide for horseback riding east of Century Avenue.

3. Primary Uses

The legislation authorizing acquisition and development of the Gateway Segment (Laws of Minnesota, 1983, Chapter 344) provides the following guidance on uses:

"The trail shall be developed primarily for hiking and non-motorized riding."

It thus seems to be the clear intent of the Legislature that at least the majority of the trail be non-motorized. Additionally, motor vehicles other than snowmobiles are prohibited on State Trails by Minnesota Rules 6100.300, the DNR's trail rules.

Snowmobiling has been proposed to be allowed at the easternmost extremity of the Gateway Segment where it passes under I-694. The reason for this is that snowmobilers have for a number of years used the railroad grade between Century Avenue and State Highway 36 as a means of getting from Oakdale to the Washington County trail network. Since the Gateway Segment, by law, is to be primarily non-motorized, and since the Boundary Trail Master Plan provides that the remainder of the railroad grade from I-694 to Pine Point Park should be non-motorized by administrative designation, it is recommended that snowmobiling not be allowed in the corridor except in special circumstances. Since the I-694 underpass represents the most convenient means for snowmobilers to cross I-694, it is felt that use of the underpass can be permitted if snowmobilers can

make their own arrangements to get to and from it. It will be left to affected snowmobilers, with DNR assistance as appropriate, to make these arrangements, and the DNR will insist on the presentation of a workable plan by the snowmobilers before permission is granted to use the underpass.

As noted in an earlier section, DNR research indicates a growing need for land-based recreational facilities, particularly trails, in urbanized areas. Half of Minnesota's population lives in the Metropolitan Area, and research shows that such pursuits as hiking, bicycling, ski-touring, jogging, walking, etc., are close to home activities for most people. The acquisition and operation of the Gateway Segment for these uses is in line with DNR priorities established based on this research.

The potential of this trail for bicycle commuting has already been mentioned. Additionally, it also represents the southern beginning point of the long distance bicycling opportunities represented by the Minnesota-Wisconsin Boundary State Trail, with connections to Duluth, the St. Croix Valley, and several state parks. Asphalt surfacing should be laid on the full length of the Gateway Segment.

Information obtained to date from horseback riders indicates that, as with snowmobilers, their main concern as regards the Gateway Segment lies in being able to travel from Oakdale into Washington County. As is again the case with snowmobilers, the trail's I-694 underpass appears at present to be the most convenient means of doing so. The already-planned Minnesota-Wisconsin Boundary State Trail northeast from I-694 is already designated for horseback riding.

Some observers have expressed concerns regarding the use of a single treadway by both horses and bicycles. Further, an asphalt treadway appears to be inappropriate for horse use, as the animals can be subject to injury if such use is prolonged. Accordingly it is recommended that horseback riding be provided for only east of Century Avenue. How this is to be done will be determined at the time of development.

Negative indications from municipalities and lack of a destination appear to preclude consideration of horse use west of Century Avenue, although this question can be reopened later if the need arises.

The paving of the main treadway for bicycling will create a de facto path for hikers and cross-country skiers. All manner of foot travel is expected on the Gateway Segment, including jogging, recreational walking, and backpacking. Providing for these will include constructing rest areas at suitable intervals, and landscaping. To a great extent, facilities established for hikers will serve the needs of other users as well.

The entire Segment should be designated and groomed for cross-country skiing in winter, or other non-motorized uses as appropriate. Under certain circumstances it may be more suitable to maintain the trail as a walking and bicycling trail in winter. The DNR should monitor the situation carefully on an on-going basis and be prepared to respond to the public's need.

4. Specific Design Considerations

Development proposals considered in this section are discussed starting at the west end of the Gateway Segment and proceeding east.

Access and Service Facilities. The Gateway Segment should be accessible on the west from both Arlington and Maryland avenues. An

agreement with DOT will be necessary in order for this to be accomplished (see below).

The Arlington Avenue access will be provided in part as a result of DOT plans for the Interstate 35 East (I-35E) corridor. The 20-year plan published by DOT District 9 (Oakdale) calls for improvements to I-35E between Interstate 94 (I-94) and I-694 in the early 1990s. These improvements may include the addition of a lane of traffic in both directions, and bridge replacement. The plan has proposed, as part of this work, that the Gateway Segment bridge over I-35E be permanently removed and the trail rerouted from its western point of origin north to Arlington Avenue, thence east over I-35E to the point of juncture with the Gateway Segment (Figure 5). Additionally, the DOT has requested transfer of fee title to the land under the former railroad bridge from the DNR to the DOT. The DNR should agree to this proposal under the following conditions:

1. The reroute should be constructed at DOT's expense according to specifications to be negotiated with the DNR.
2. That portion of the reroute sited on the Arlington Avenue bridge should be affirmatively separated from vehicular traffic, on the south side of the street, via a jersey barrier or something similar.
3. The DOT should grant sufficient right-of-way for a trail connector to Maryland Avenue over land it controls south of the trail (Figure 5a).
4. The DOT's I-35E right-of-way north of the trail and adjacent to I-35E should be used for the reroute as well as the west end parking lot (Figure 5b). This will effect the trail access from Arlington. The DOT should allow the use of sufficient land in the right-of-way for these purposes.
5. Trail access to Arlington and Maryland should be made in a timely manner, to coincide with the DNR's development schedule for the west end of the Gateway Segment.
6. The DOT should keep the DNR promptly informed as to matters of mutual interest regarding this project.

7. The DOT should give consideration to use of its I-35E right-of-way south of the trail by the City of Saint Paul for a city trail connecting the Gateway Segment with the downtown area (Figure 6).

Access from Maryland Avenue is necessitated by the fact that the I-35E access ramps nearest to the trail are located there. The trail access to Maryland Avenue will require passage over land controlled by DOT, the Saint Paul Water Commission, and the Kresge Corporation. The Water Commission has granted two crossings over its water pipeline to the fee owner of DOT's I-35E right-of-way south of the trail, and this owner has indicated no objections to the DNR's use of these crossings for trail access. The DNR should move promptly to reach agreement with these parties in order to provide access to the trail from Maryland Avenue.

At the time of sale of the railroad grade to the DNR, the Soo Line Railroad Company retained a parcel of land west of I-35E for a billboard site (Figure 5c). The Arlington access connector and trail realignment must be so sited as to avoid this parcel. Further, access to this sign parcel by the sign company was guaranteed by the DNR at the time of purchase. Trail and reroute development should take this into account.

The Ramsey County Public Works Department has indicated an interest in replacing its road bridge over the trail at Larpenteur Avenue. While the DNR does not dispute the need to replace the bridge, discussions have centered around the DNR's perceived need to maintain grade separation between what will be a high-use trail and the well-travelled street. Recent Average Daily Traffic (ADT) counts show that this street

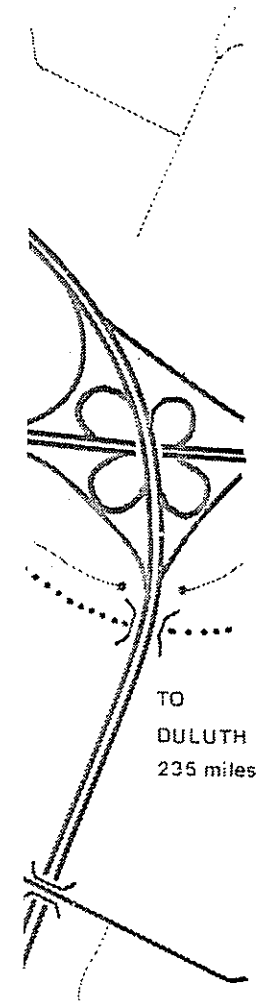
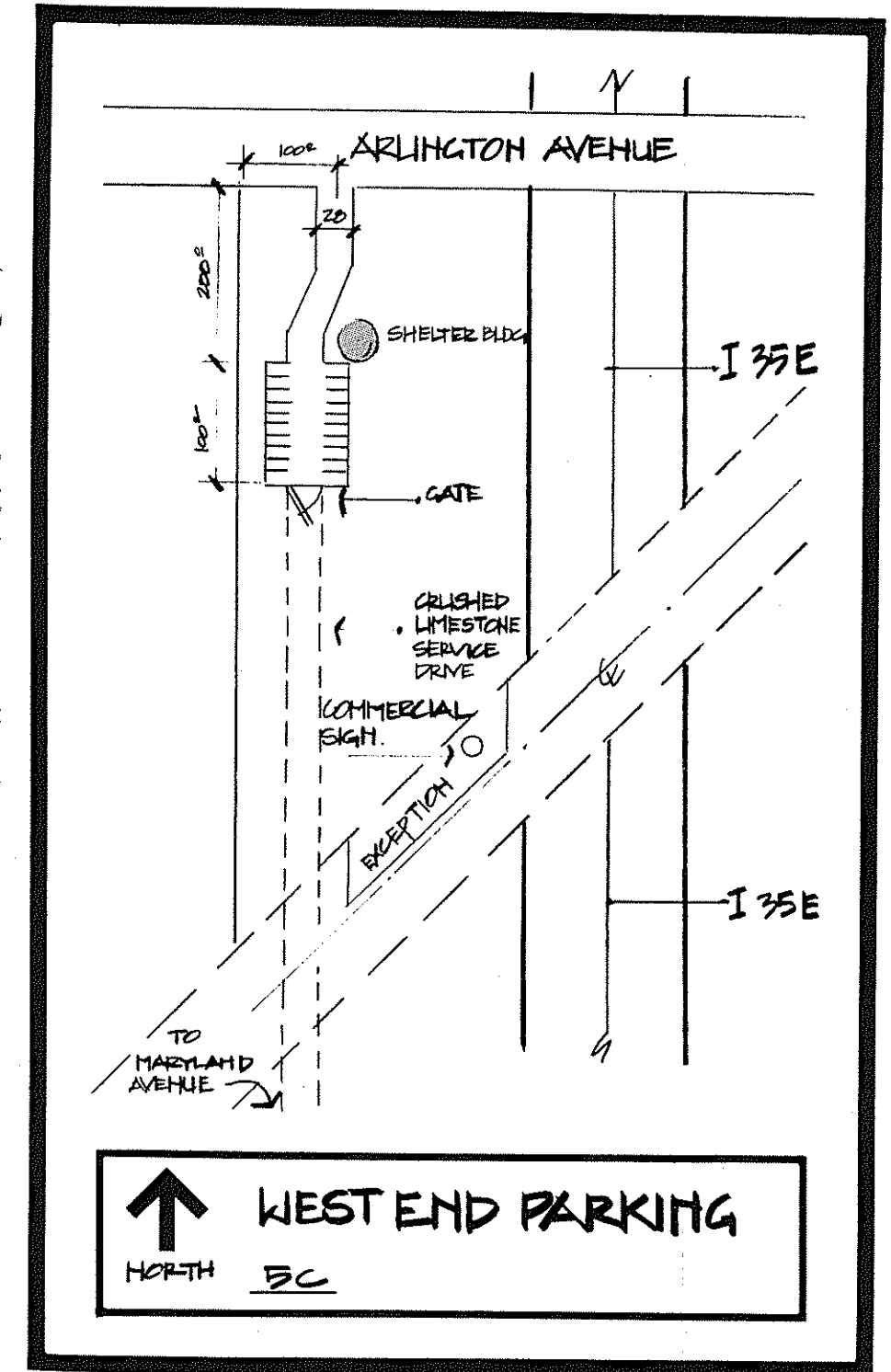
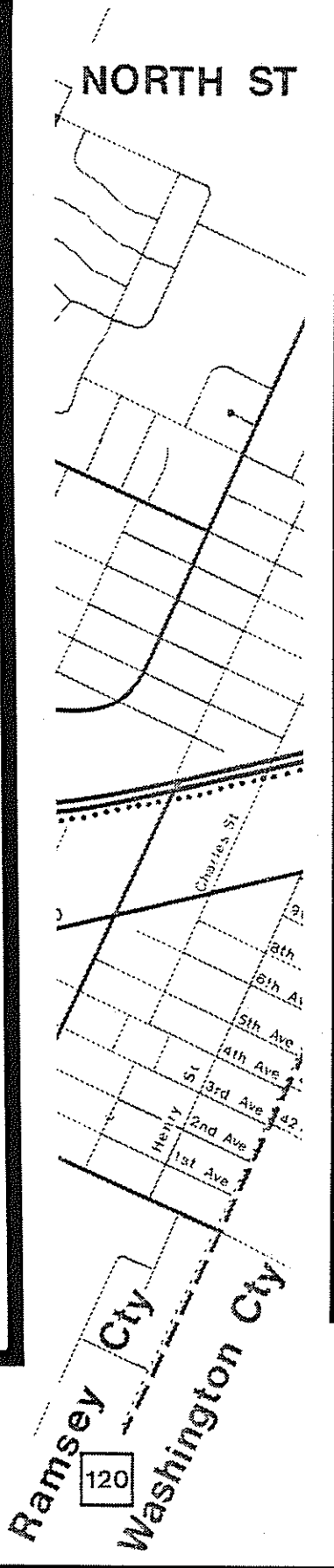
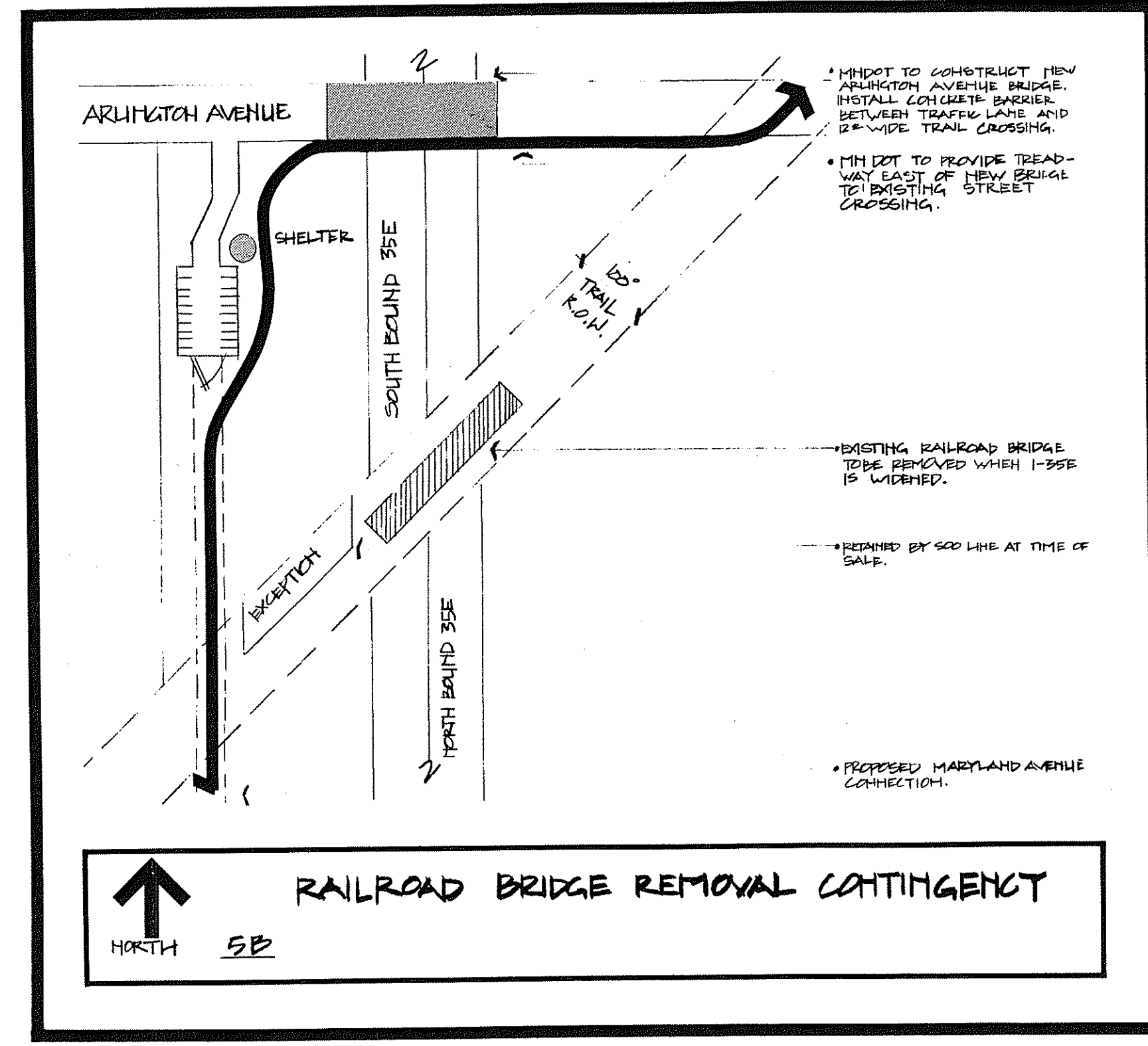
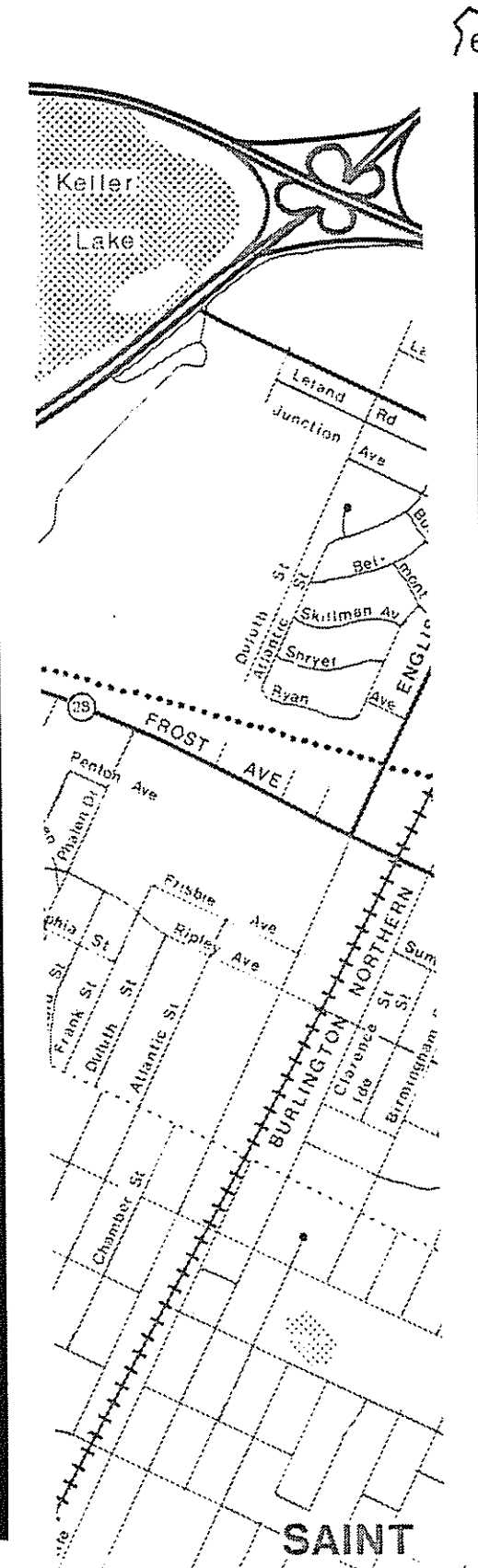
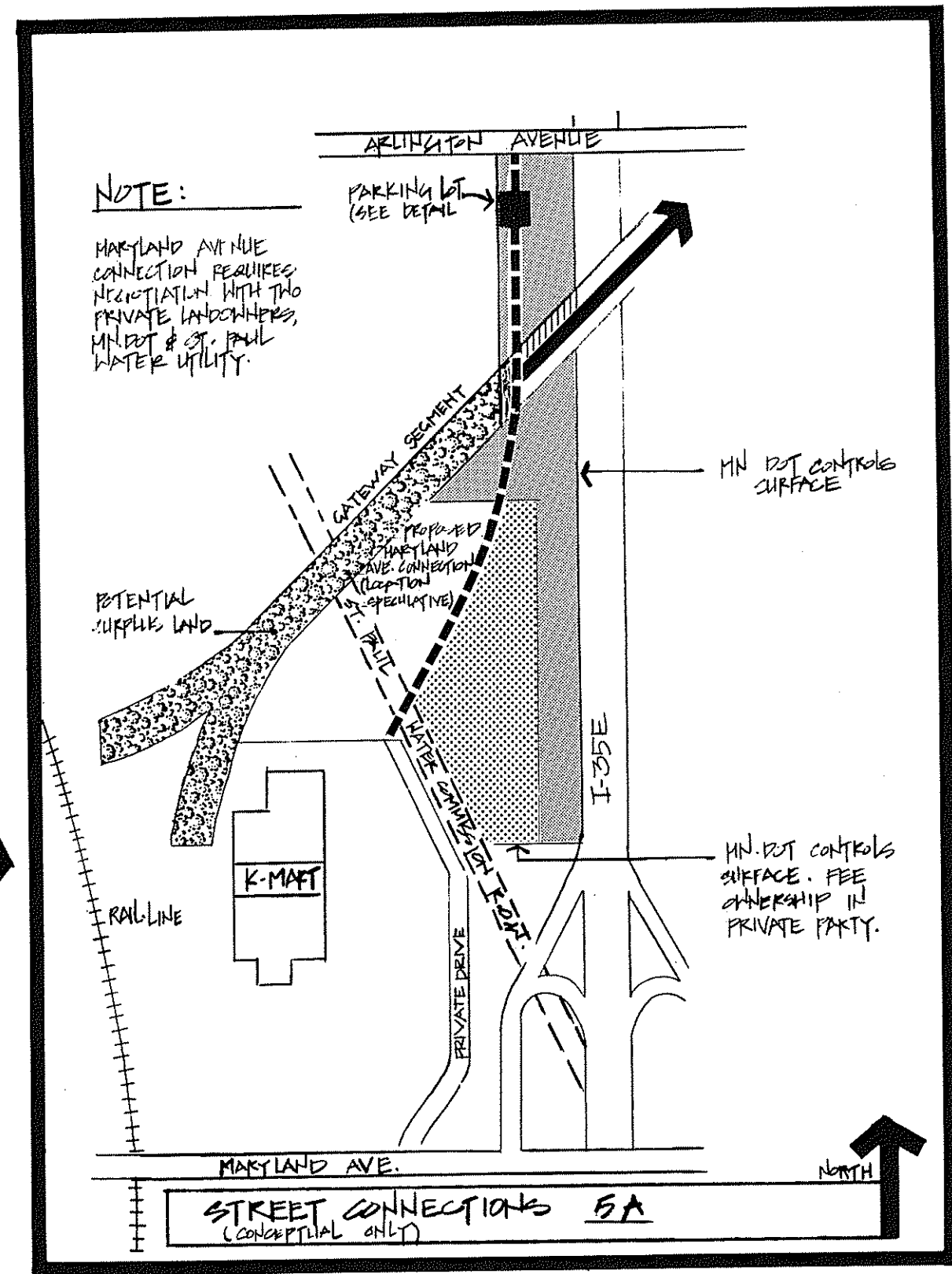
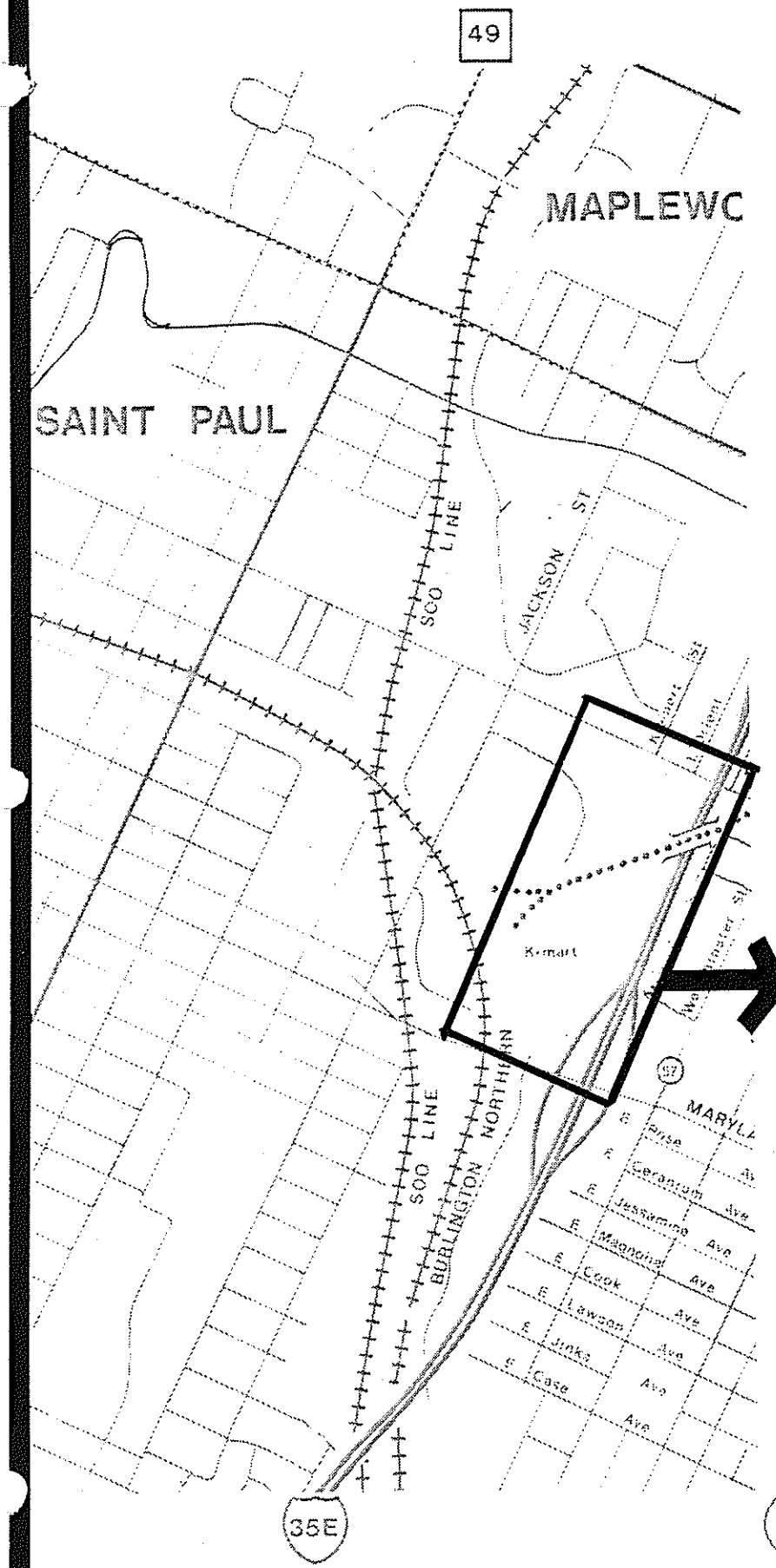


Fig. 5
West Terminus Parking Lot and Trail Access

GATEWAY SEGMENT

- KEY**
- GATEWAY SEGMENT
 - CITY LIMITS
 - COUNTY BOUNDARY

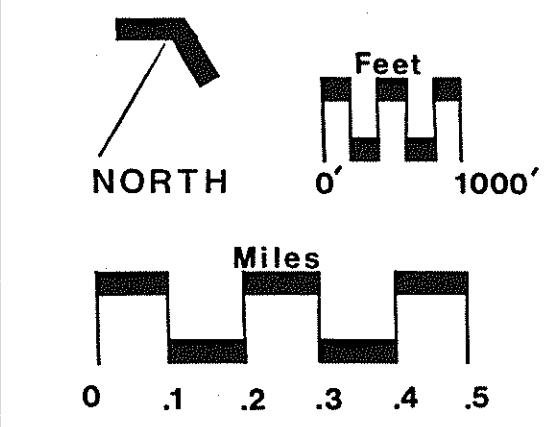
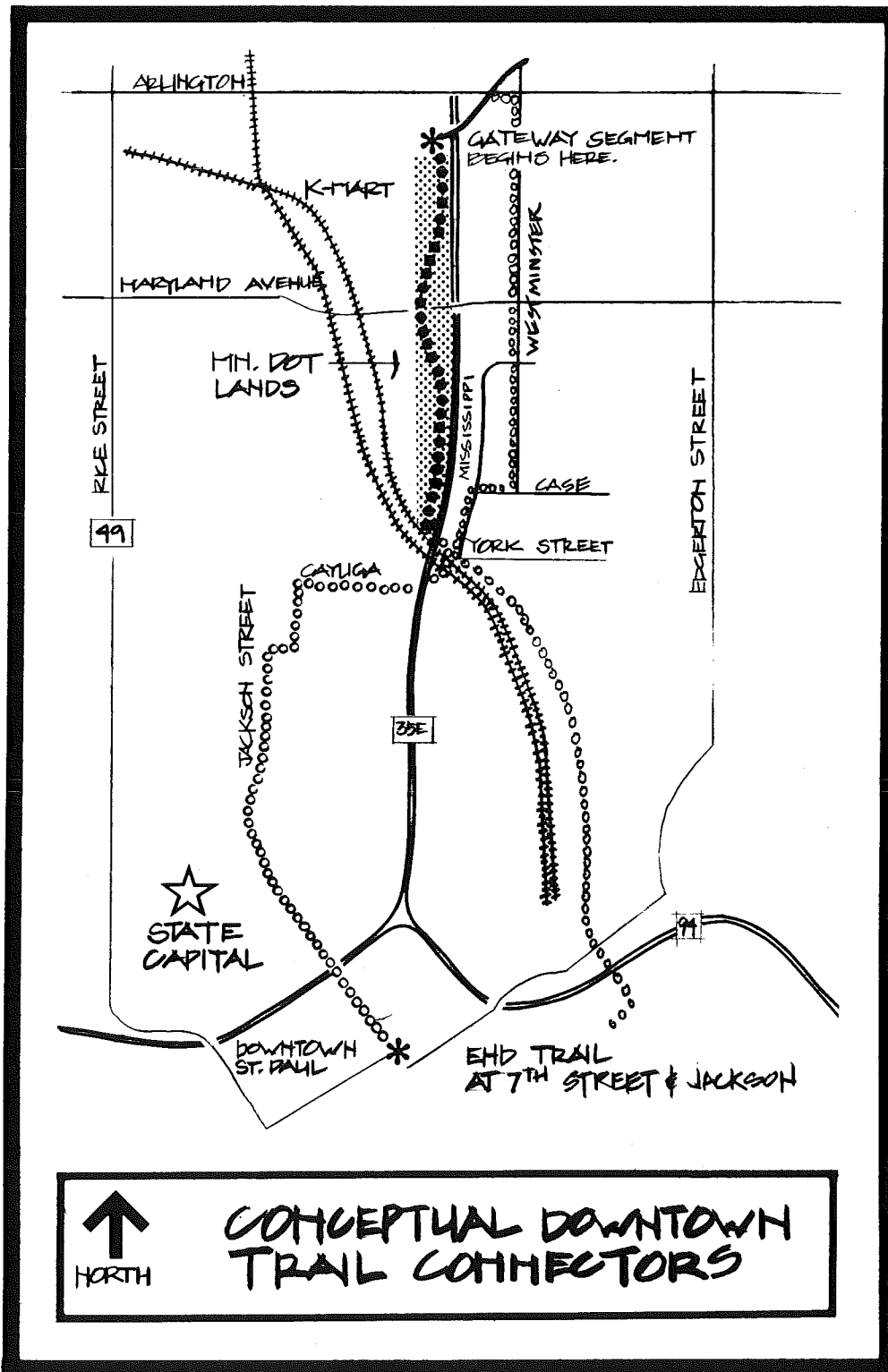


Fig. 6 Conceptual Downtown Trail Connectors



is a 35-mph minor arterial carrying between 8-10,000 vehicles per day. The DNR has recommended the use of a concrete arch structure (Figure 7) to carry the street over the trail, and the county has agreed to propose it.

A wayside rest area should be constructed on a small (.16 acre) parcel of tax forfeit property just east of Edgerton Street in Maplewood (Figure 8). A "vest pocket park" style development, consisting merely of several benches and landscaping, would be well-situated on this parcel to serve as a rest stop for trail users as well as a green space enhancement for the surrounding area, which is primarily residential.

Since this parcel is tax forfeit, title presently rests in the state. However, the statutes provide that the counties have management authority over tax forfeit parcels within their boundaries. Use of this parcel for trail purposes will require that the DNR obtain management authority over it from Ramsey County. The procedure is as follows:

1. The Regional Trails and Waterways Coordinator contacts the DNR Bureau of Land and informs them that the Trails and Waterways Unit wishes to obtain the necessary management authority.
2. The Bureau of Land assigns a negotiator who contacts the county for its approval and secures an abstract of title.
3. If the County Land Office approves the transaction, the Bureau of Land asks the DNR Bureau of Legal to draw up a resolution transferring the management authority to the state.
4. The drafted resolution is then approved by the county board of commissioners. The approved resolution must be recorded.

The DNR is then free to proceed with development. Since this process can be relatively time consuming, it should be started as soon as possible.

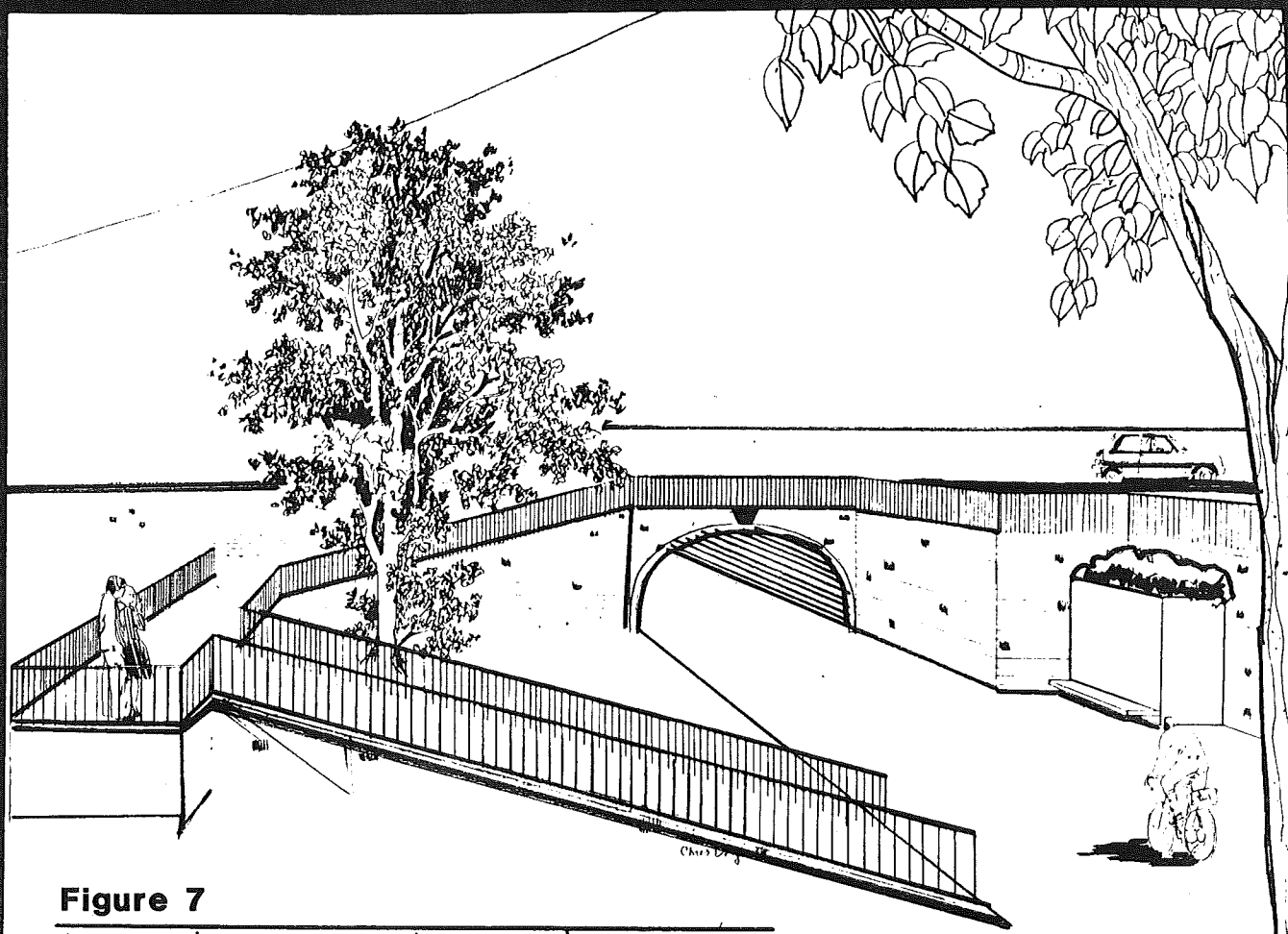
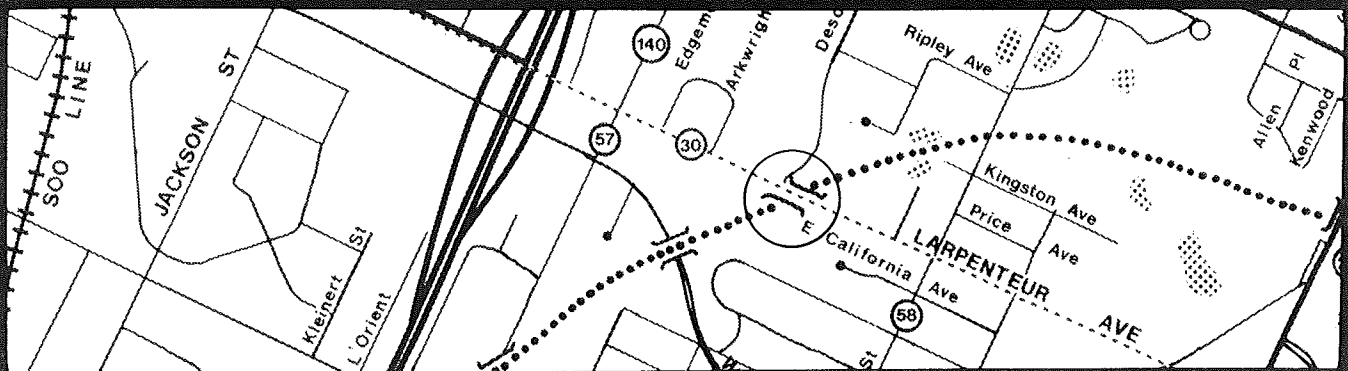


Figure 7

LARPENTEUR AVENUE UNDERPASS

VIEW LOOKING EAST



The DOT has proposed to remove the existing bridge which carries Highway 61 over the Gateway Segment as part of a Highway 61 improvement project in 1991. The present bridge is to be replaced by the DOT with a structure acceptable to the DNR. The DNR will work with the DOT to assure that trail user safety and convenience are not impaired by this work.

The Gateway Segment passes through the Phalen-Keller Park complex in Maplewood. This is a heavily used recreational facility, containing two golf courses, restroom facilities, an archery range, a swimming beach, picnic areas, and a system of hiking, bicycling and cross-country skiing trails. A connection between the Gateway Segment and the Phalen-Keller Trail system, which would make the above facilities directly available to trail users, would be highly desirable. The Ramsey County Parks and Recreation Department supports this move and indicates willingness to make land available for the connector if necessary. The connector should be placed on the north side of the trail and constructed to a grade of ten percent or less (Figure 9). A wall or berm along the northerly edge may be necessary to avoid safety hazards from the adjacent archery range.

The City of Maplewood has submitted plans to the DNR for installation of storm drain pipe in the right-of-way between Larpenteur Avenue and Prosperity Road (Figure 10a). The City has obtained a license to do that portion of the work between Lake Phalen and Flicek Park (Figure 10b). The rest of the project is deferred to a later date. Maplewood will need to seek new licenses for the additional projects.

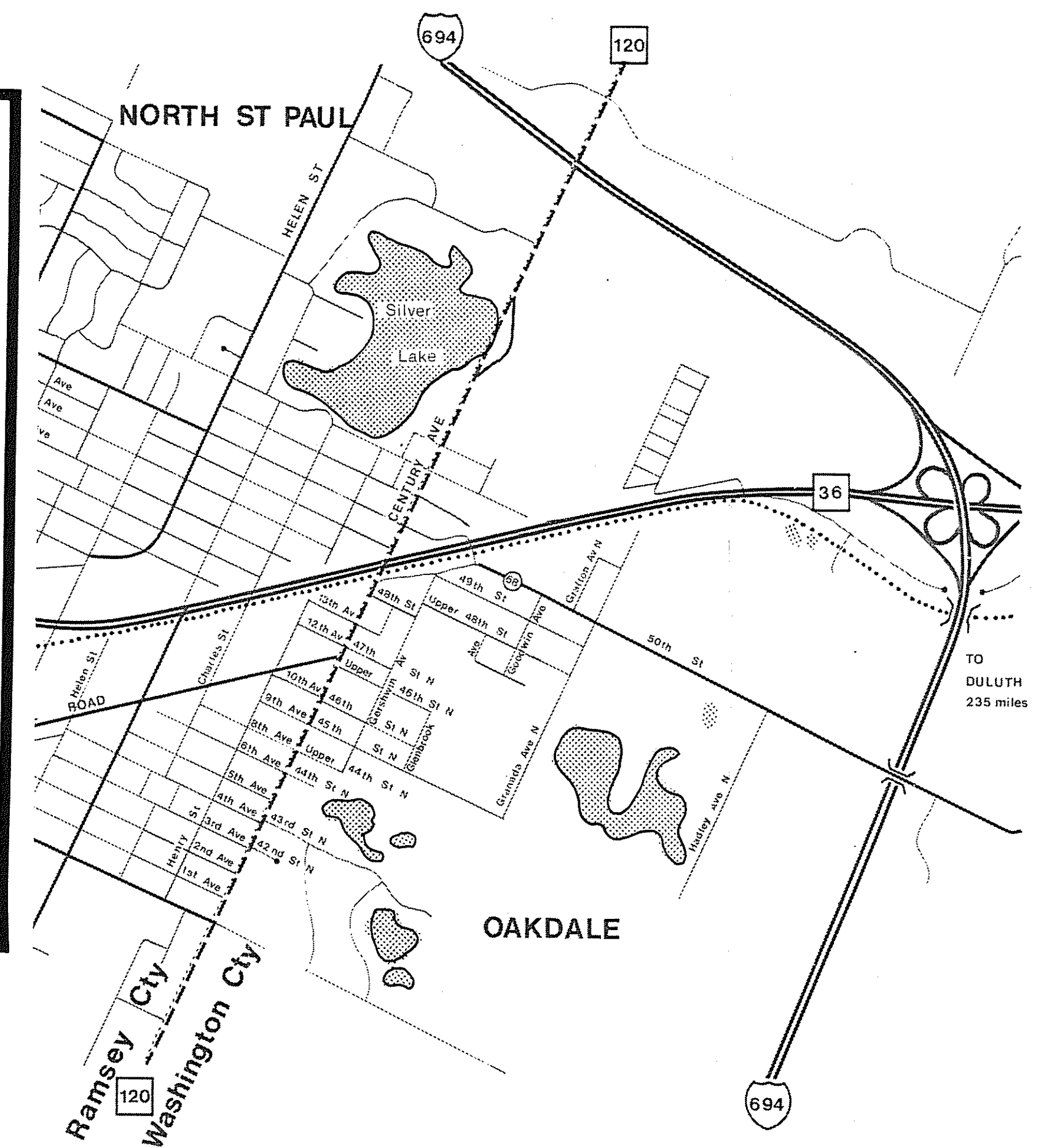
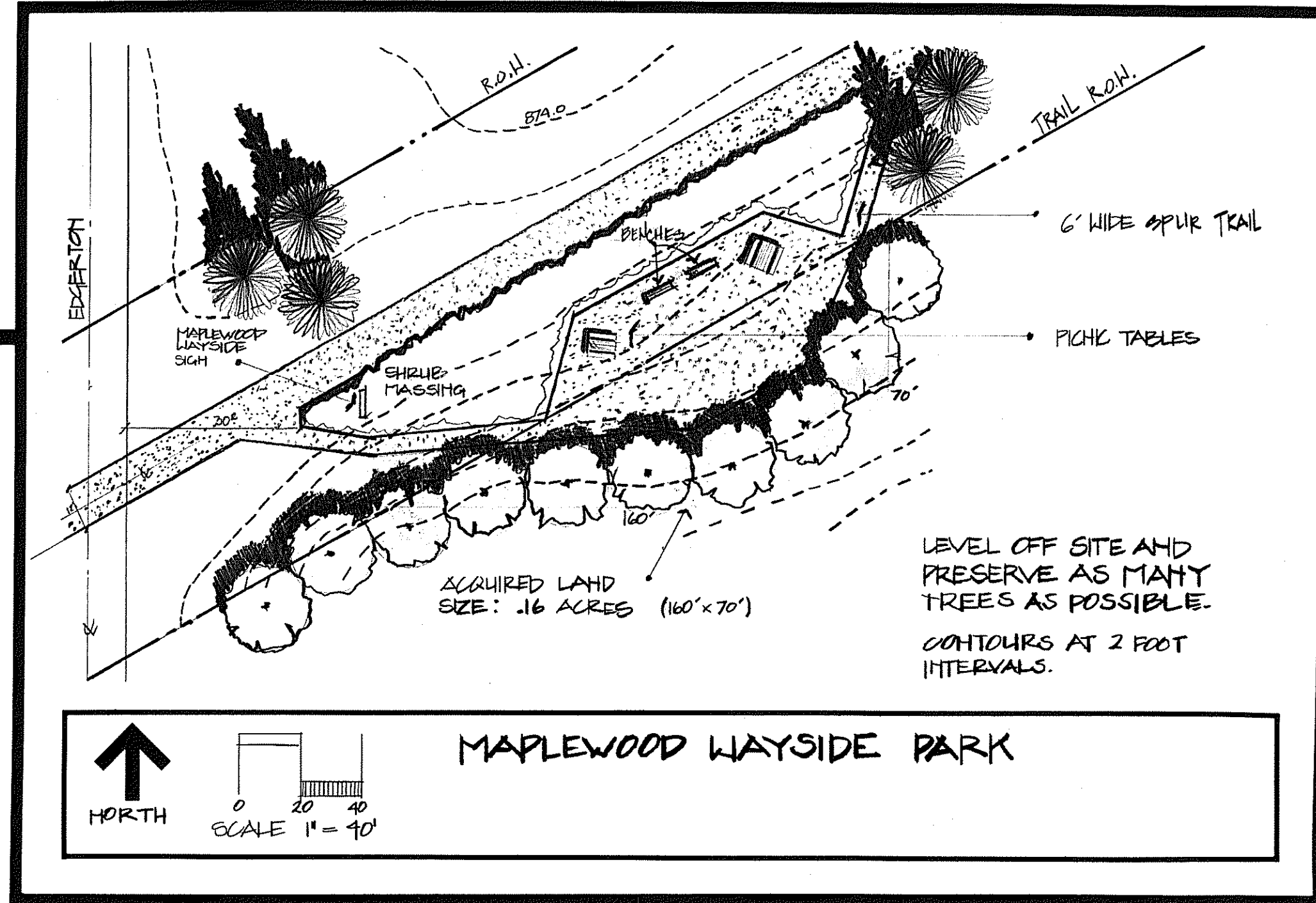
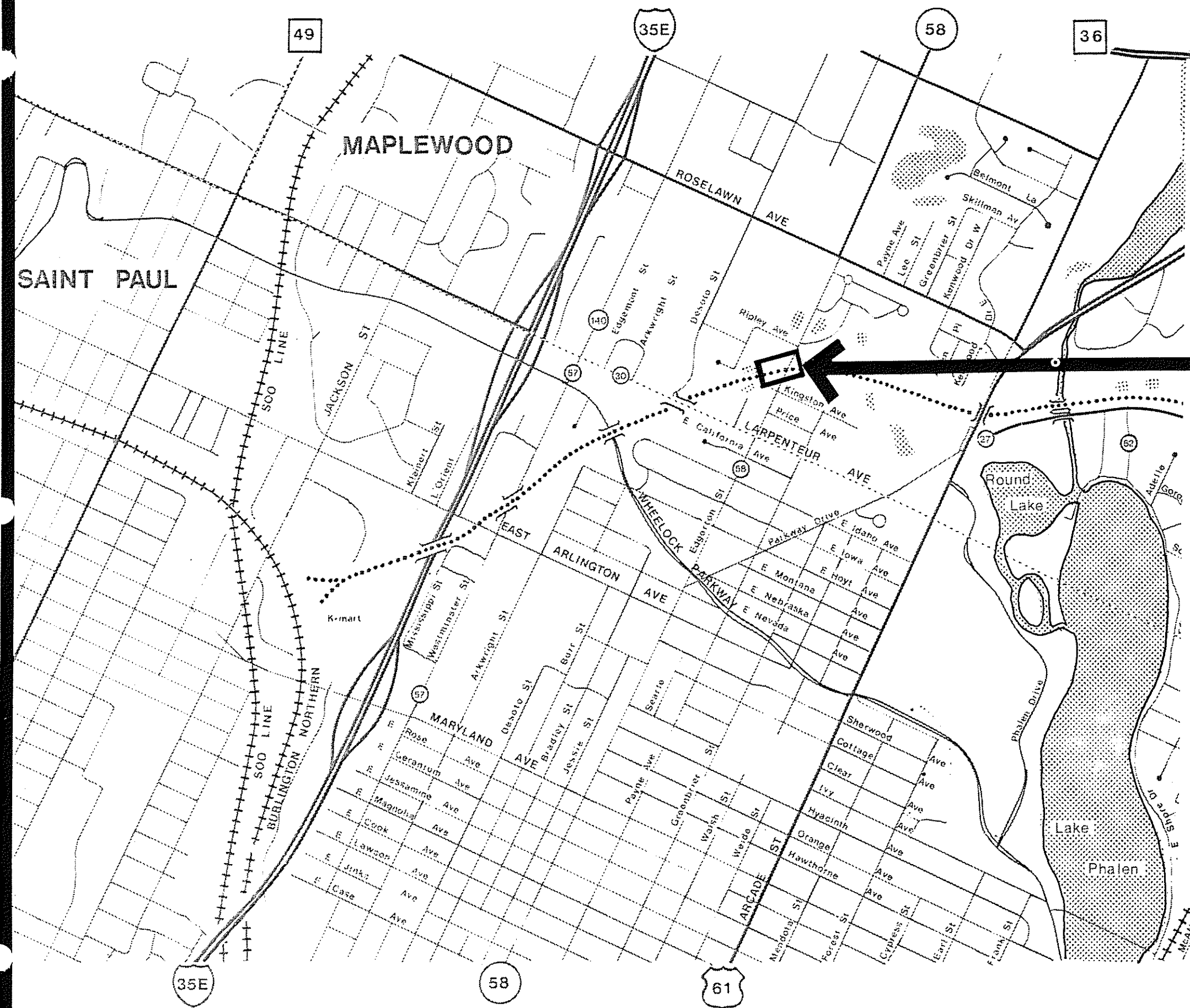
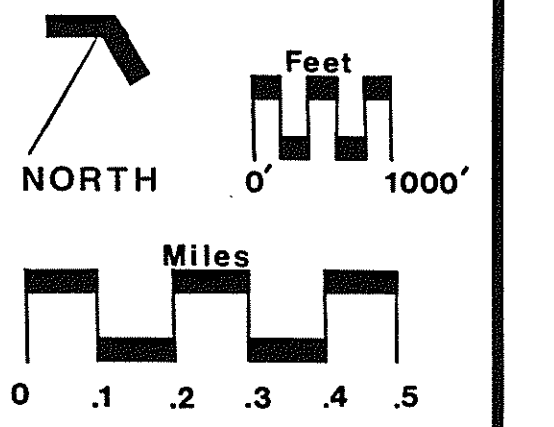


Fig. 8
Maplewood Wayside

GATEWAY
SEGMENT

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- .-.-.- COUNTY BOUNDARY



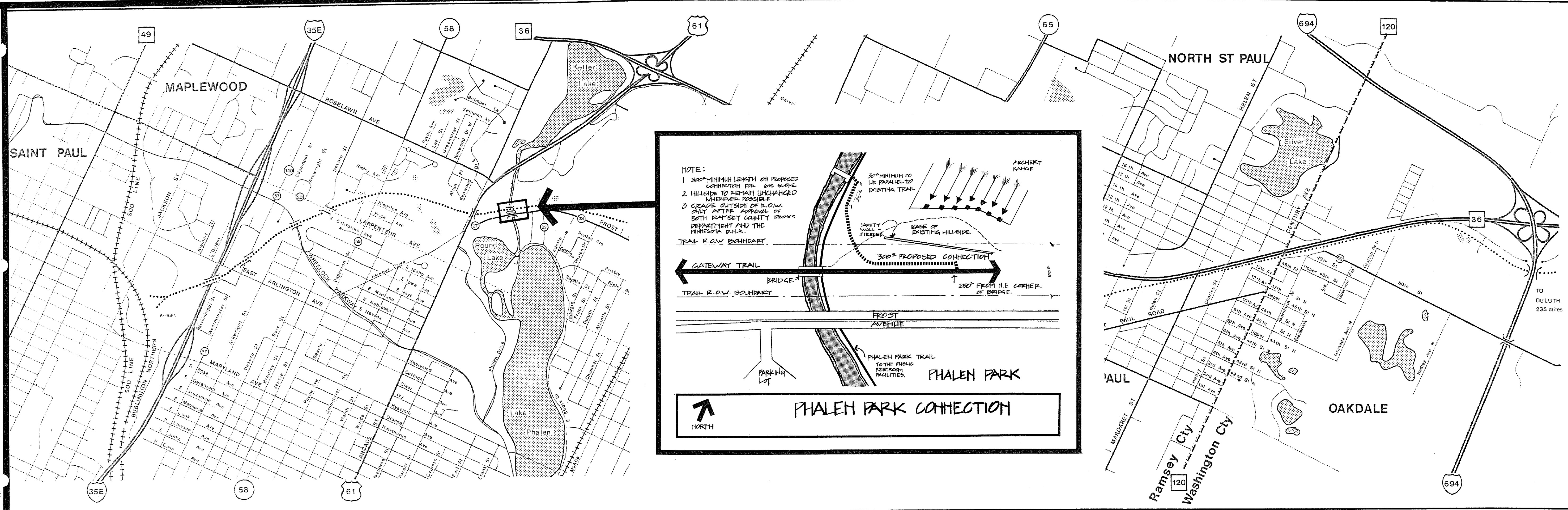


Fig. 9
Phalen Park Spur
Connection

GATEWAY SEGMENT

KEY

- GATEWAY SEGMENT
- - - - - CITY LIMITS
- COUNTY BOUNDARY

Scale and Orientation

↑ NORTH

0' 1000'

0 .1 .2 .3 .4 .5

Miles

FIG. 10A

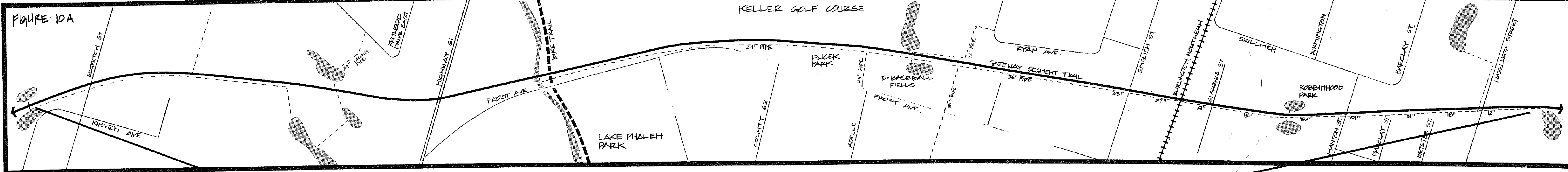


Fig.10
Maplewood Storm Drain Expansion and Ball Field Modifications
 10A: SHOWS THE LONG RANGE STORM DRAIN PLANS.
 10B: SHOWS STORM DRAIN WORK DONE IN 1986

GATEWAY SEGMENT

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- COUNTY BOUNDARY

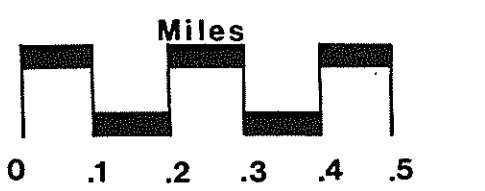
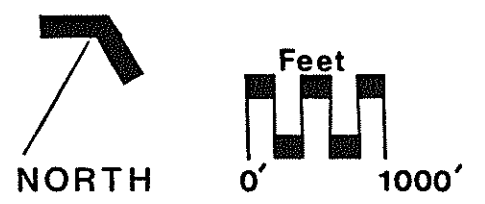


FIGURE: 10B

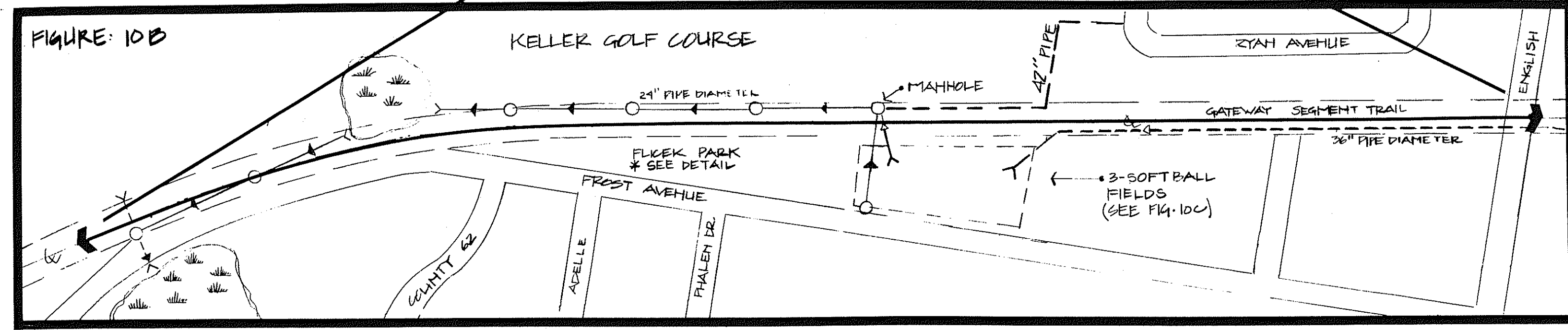
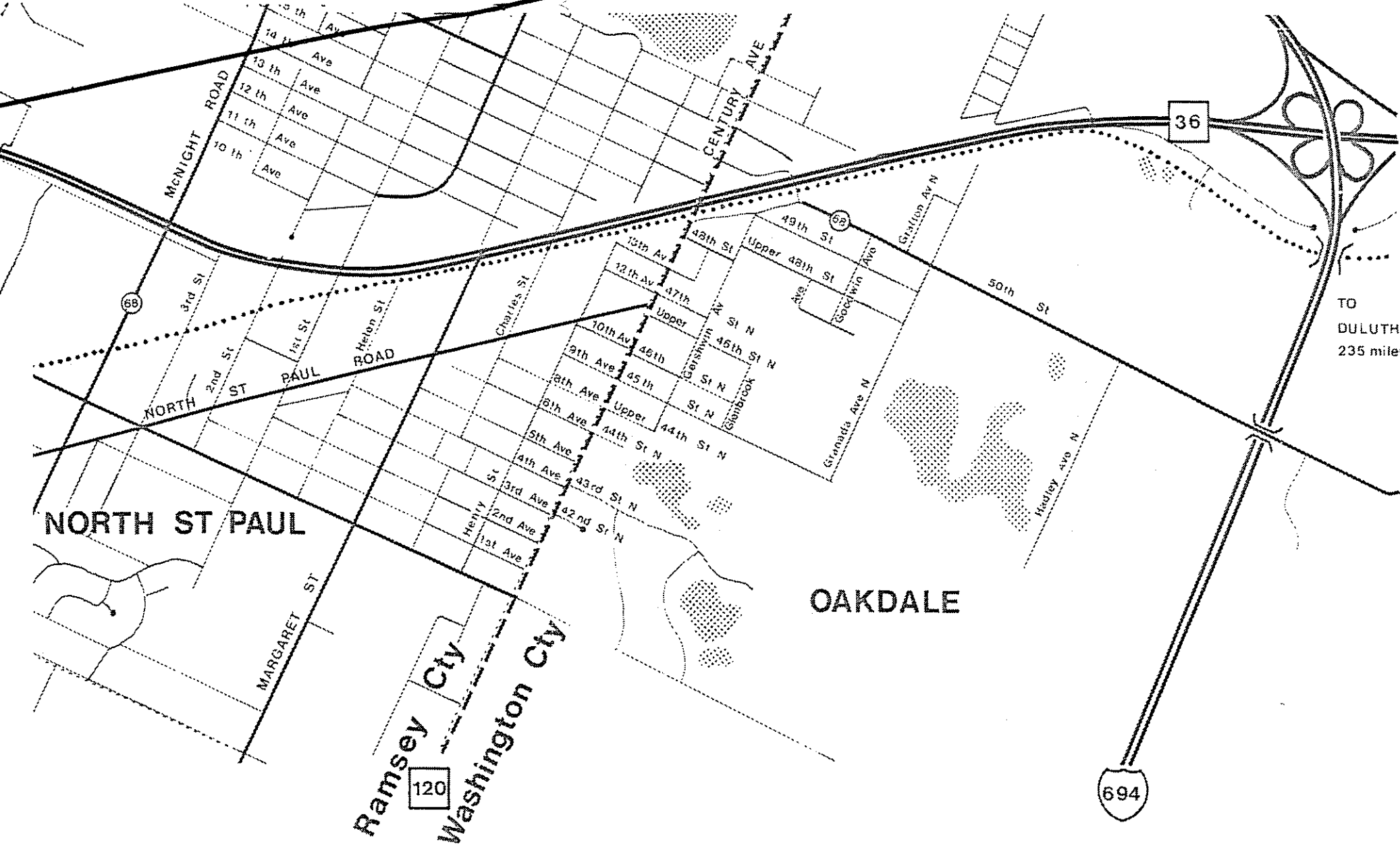


FIG. 10B



TO DULUTH
235 miles

Ramsey City
Washington City

The City has also requested a DNR government lease in order to allow expansion of the Flicek Park ball diamonds into the Gateway Segment right-of-way (Figure 10c). Negotiations are pending.

A safe crossing will be needed where the Gateway Segment crosses the Burlington Northern tracks at Gloster Junction in Maplewood, just east of English Street. Although there are numerous street crossings as the trail passes through the eastern suburbs, this is the only railroad crossing. Abandonment proceedings are currently pending on this line. The DNR should establish and maintain involvement in these proceedings in order to obtain a suitable trail crossing, at-grade if possible.

The following points should be kept in mind:

1. The Gateway Segment enabling act granted condemnation authority on this trail.
2. The former rights of the Soo Line to cross the Burlington Northern at this point may not have extinguished at the time of sale.
3. The DNR may wish to consider building an overpass at this point to separate the grades depending on the disposition of the grade after abandonment (Figure 11b).
4. At the time of sale the DNR took an option on the former wye track parcel connecting the Soo Line and Burlington Northern tracks in the southeast quadrant of the junction. If no crossing is possible at Gloster, and the DNR must reroute the trail so as to cross the Burlington Northern tracks at an existing street intersection (i.e., Frost Avenue), this former wye would be the route of choice (Figure 11a).

The Maplewood Department of Community Services has requested coordination with the DNR regarding development of the right-of-way where it passes between Robin Hood Park and the grounds of the former Gladstone School. Their desire is to so landscape and vegetate the right-of-way in this vicinity as to create visual and physical continuity across the right-of-way between the two parks. A plan view of such a project is given in Figure 12. The City of Maplewood has agreed to keep the area

KELLER GOLF COURSE

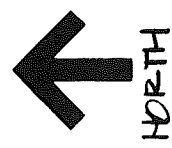
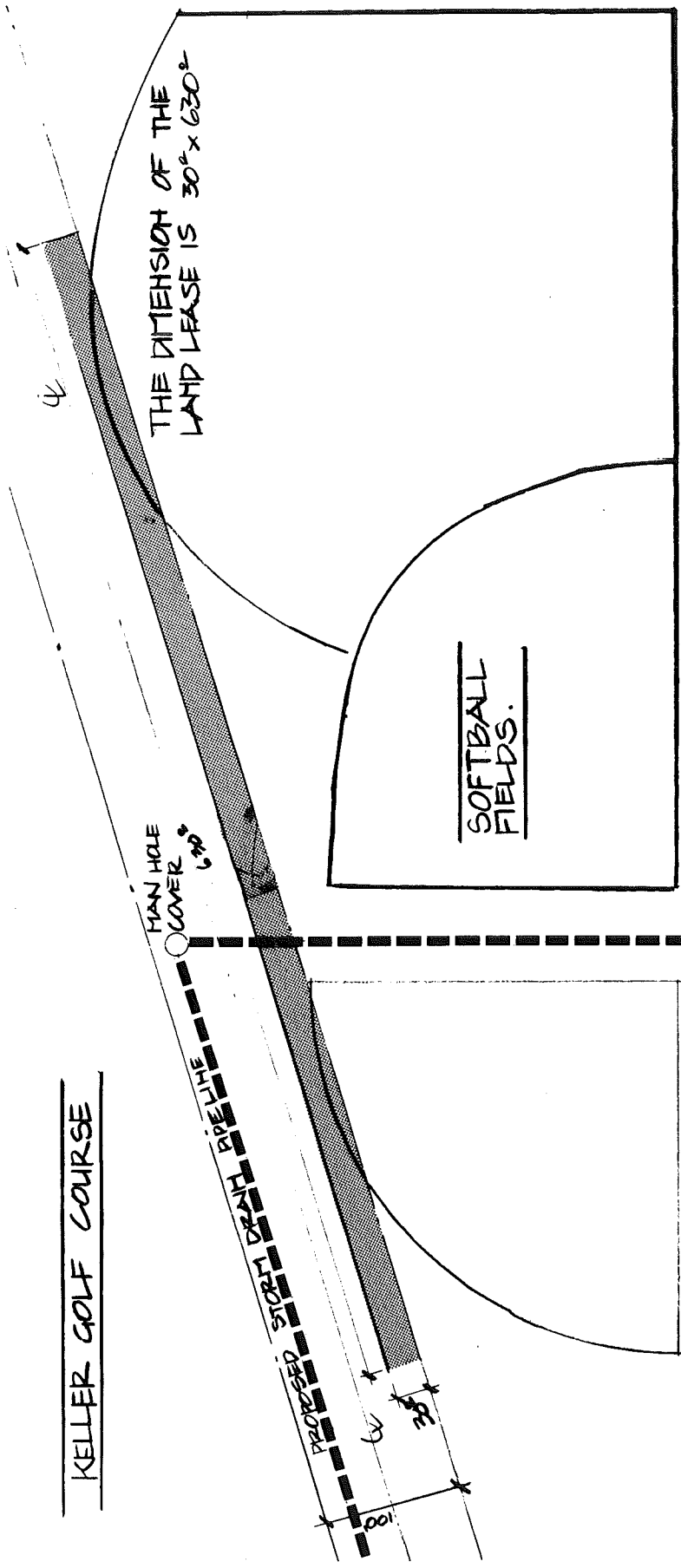


FIGURE 100 MAPLEWOOD BALL FIELD EXPANSION

LEGEND: DNR LAND TO BE LEASED BY CITY OF MAPLEWOOD FOR FIELD EXPANSION,

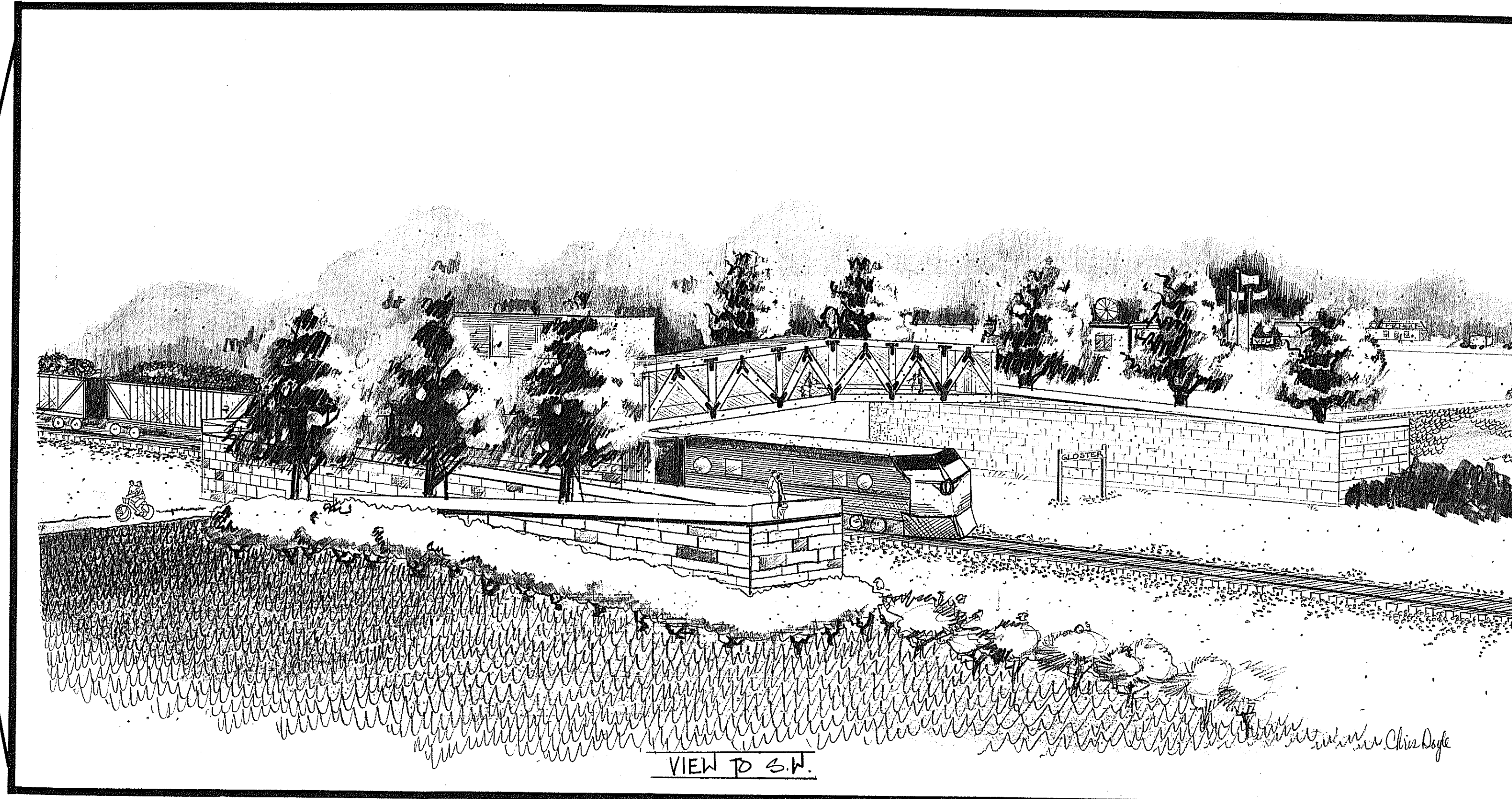
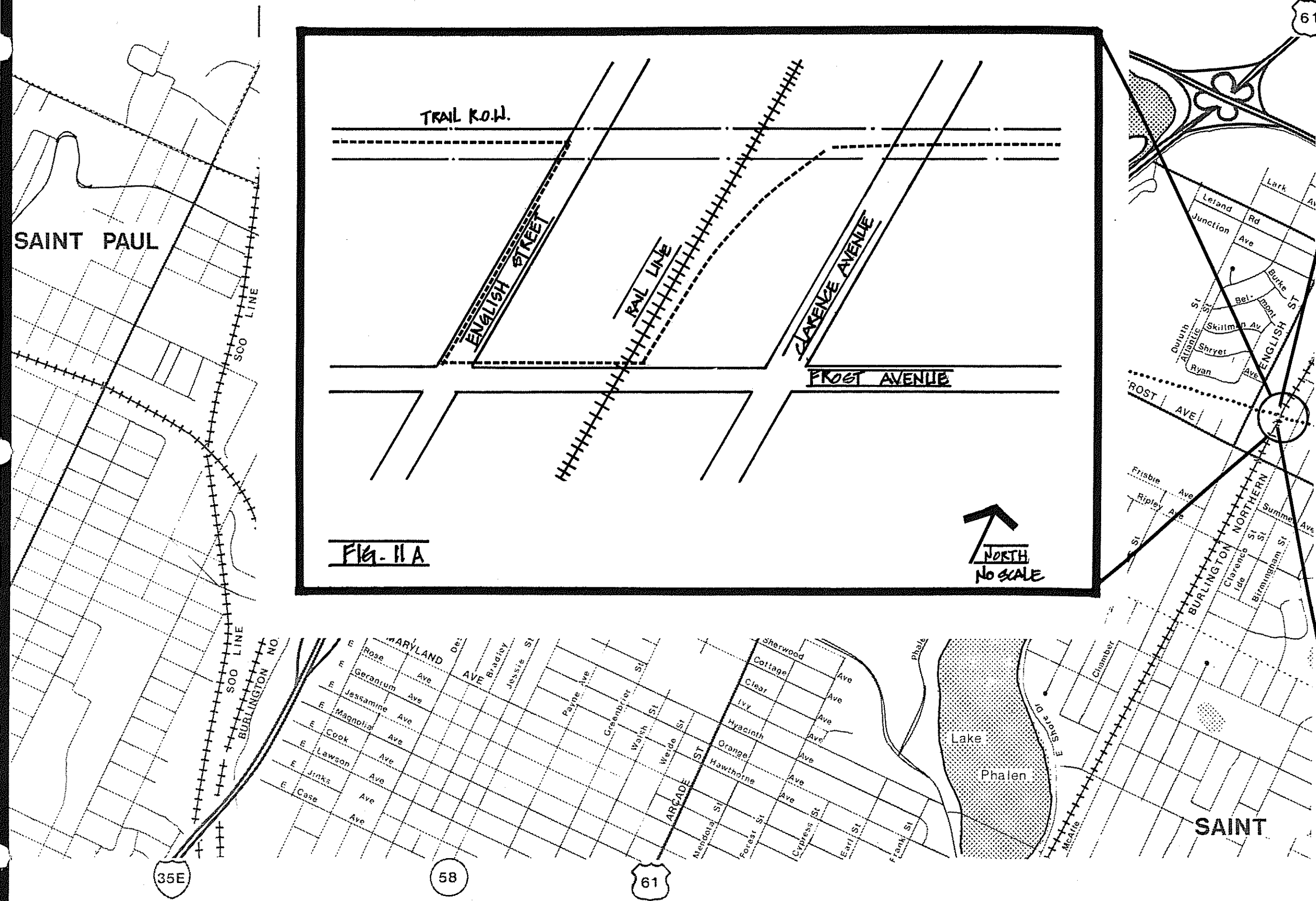
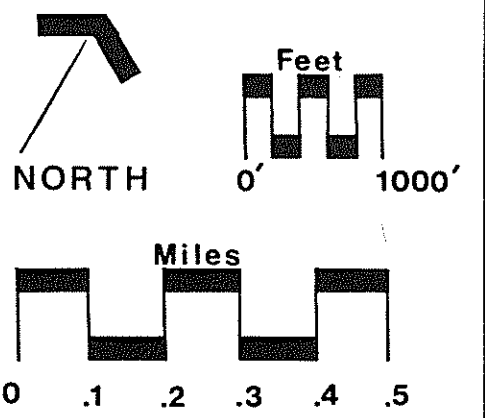


Fig. 11
Gloster Overpass

**GATEWAY
SEGMENT**

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- COUNTY BOUNDARY



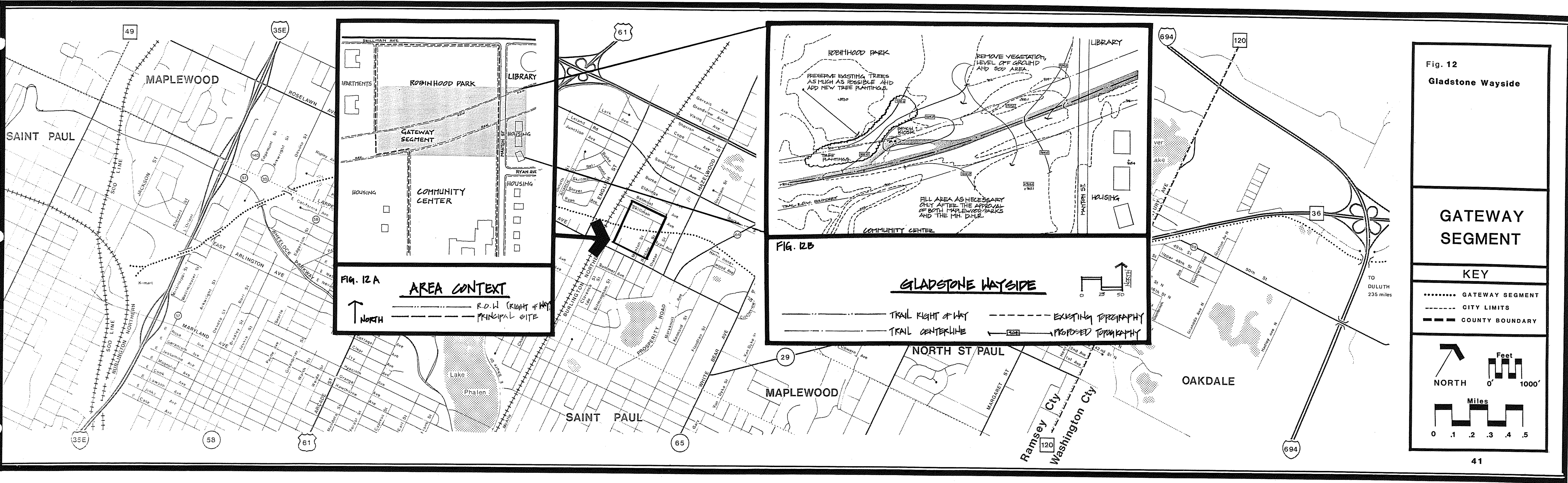


Fig. 12
Gladstone Wayside

GATEWAY SEGMENT

KEY

- GATEWAY SEGMENT
- - - - - CITY LIMITS
- — — COUNTY BOUNDARY

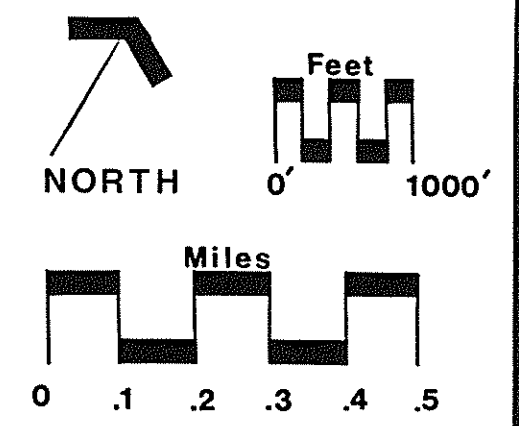


FIG. 12 A
AREA CONTEXT

- ↑ NORTH
- R.D.W. (RIGHT OF WAY)
- - - - - PRINCIPAL SITE

FIG. 12 B
GADSTONE WAYSIDE

- TRAIL RIGHT OF WAY
- TRAIL CENTERLINE
- - - - - EXISTING TOPOGRAPHY
- PROPOSED TOPOGRAPHY

mowed if the DNR will level the area and establish grass in the corridor. This is well-advised since the right-of-way in this area presently is weedy and overgrown.

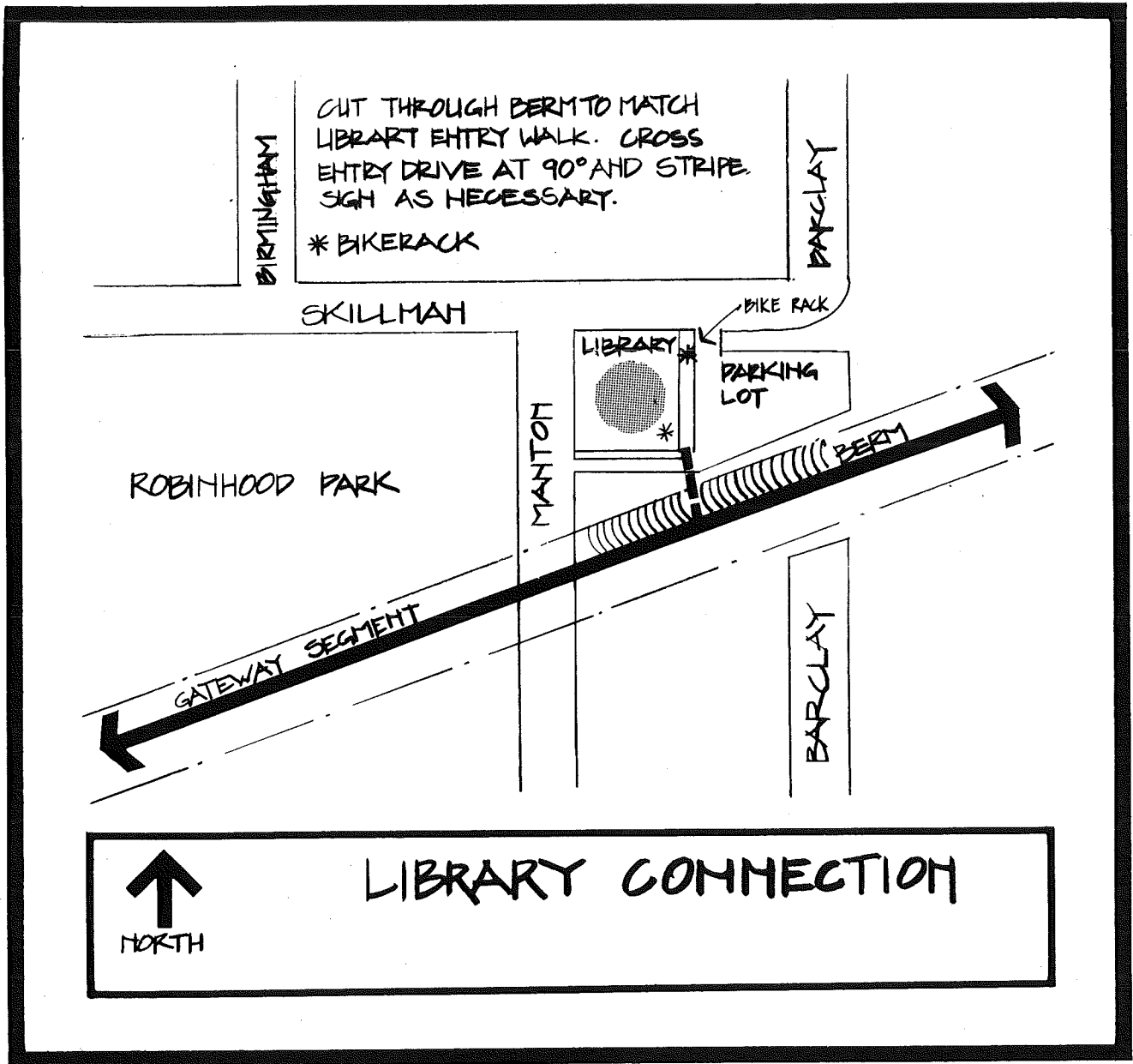
In this same vicinity the trail passes immediately to the south of the Maplewood Branch of the Ramsey County Library System. However, a large berm forms a visual and physical barrier between it and the trail. It is desirable to breach this obstacle in order to encourage library users to travel to the library on the trail. On-site inspection will probably reveal the best location for this work. An example is given in Figure 13. This proposal will be rendered moot if a proposed relocation of the library is implemented.

According to recent traffic counts, White Bear Avenue carries approximately 20,000 cars per day in the area where it is crossed by the trail. This street, which is a county highway, is presently four lanes wide with an 80 foot right-of-way. Ramsey County plans, at some future point, to improve it, ultimately widening the right-of-way to 120 feet.

At the present time, the trail crosses White Bear Avenue at grade. White Bear Avenue is, at this point, a four lane street with a 35 mile per hour speed limit, creating an inconvenient and potentially hazardous situation for trail users. Further, the latest ADT counts at this point show 17,500 cars per day use the street at this point. It is recommended that the DNR separate the grades at this crossing, either by means of a tunnel underneath or an overpass (Figure 14). To leave the crossing at grade is to expose trail users to undue hazards, and, at least, to undue inconvenience in the form of long waiting periods for a safe crossing.

Fig.13

Library Connector



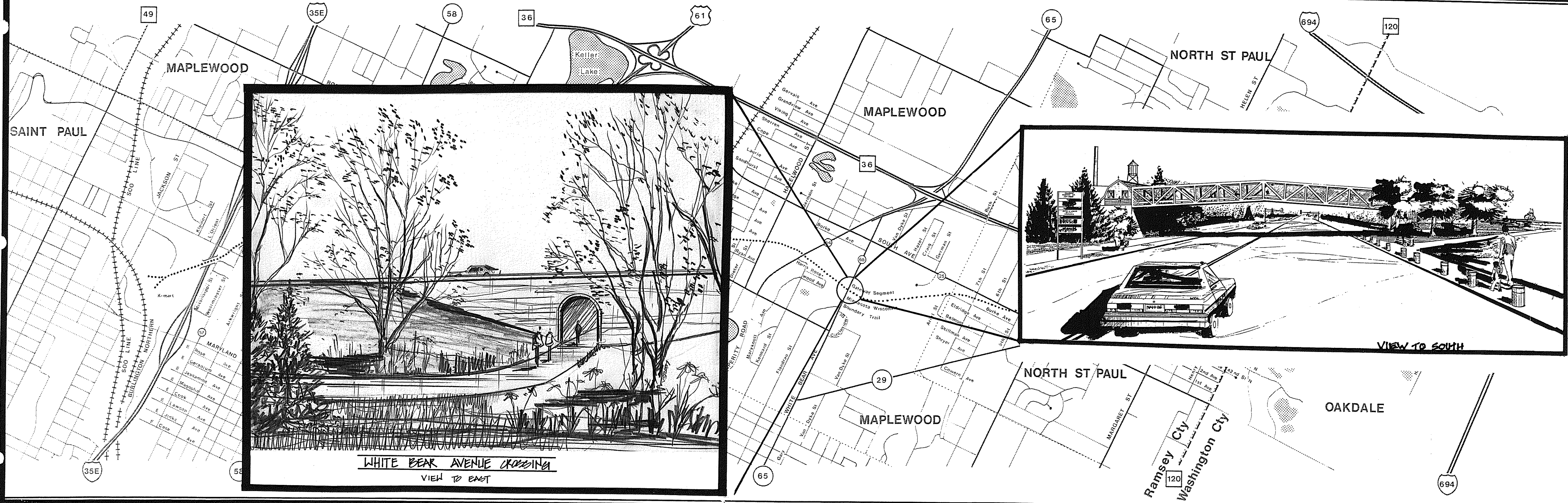
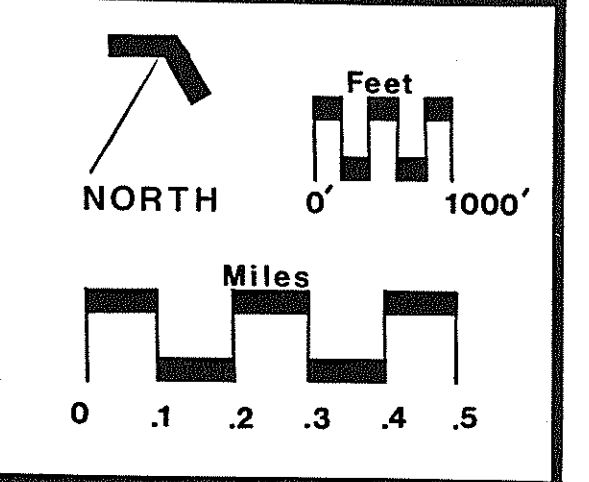


Fig. 14
White Bear Ave. Crossing

GATEWAY SEGMENT

- KEY**
- GATEWAY SEGMENT
 - CITY LIMITS
 - COUNTY BOUNDARY



Whether a tunnel or an overpass is selected, it must be so constructed that necessary footings and entrance ramps lie outside Ramsey County's planned 120 foot street right-of-way, which is documented in the county's major street plan. This will allow the road to be widened without requiring reconstruction or replacement of the bypass structure.

The DNR should work with the City of North Saint Paul to establish a trail wayside on a vacant city-owned parcel of land near the Seventh Street-County Road B intersection (Figure 15). With a modicum of development, to include several benches, tree and shrub plantings, and landscaping, the DNR can considerably enhance the trail environment in this area, not only for trail users but also for residents of the area, which is residential in nature (Figure 15b). The site is already partially wooded and would require minimal levelling to make such development feasible. The city should be asked to assist with maintenance, including mowing and litter pick-up.

At the point where the trail crosses County Road B, the crossing itself forms an oblique angle with the street. This is potentially unsafe for trail users, particularly bicyclists, since it requires them to look back at a sharp angle over their shoulders to observe street traffic before crossing. The DNR should make use of the available 100 foot right-of-way at this point to create a 90 degree crossing, to alleviate this problem (Figure 16). This will require some filling in the low area on the north side of the road, but contacts with the U.S. Army Corps of Engineers indicate that such work is likely to be covered under a general permit, G.P.-001. The Ramsey County Public Works

Department Major Street Plan indicates that ultimate right-of-way needs for County Road B at this location are 66 feet. This right angle crossing should be so constructed as to not interfere with future road widening work done by the county. The DNR should work with the county to provide striping and signing at the crossing.

Each of the alternatives shown, A and B, has unique advantages. Alternative A would not require use of the driveway shown in the graphic for the trail treadway. However, alternative B would require less fill material to be placed in the wetland north of County Road B. It should be noted that no record has been found which legitimizes the presence of this driveway in the trail right-of-way.

Ramsey County has indicated its intention to improve and widen McKnight Road from State Highway 36 to Interstate 94. The trail crosses McKnight Road near Highway 36, and the DNR will work with the county to assure the safety and convenience of trail users at this point. Striping and signing may be proposed as part of the project.

The Gateway Segment bisects the Anchor Block industrial site in North Saint Paul. This is an area of one city block which is occupied south of the trail right-of-way by a concrete block storage yard and north of the trail by the block manufacturing plant, administrative offices and more block storage. A service road crosses the trail right-of-way and connects the two areas. Anchor Block representatives have expressed concerns regarding the potential safety hazard represented by the intersection of the trail with this service road, which, according to Anchor Block, is used by many company forklifts, trailer

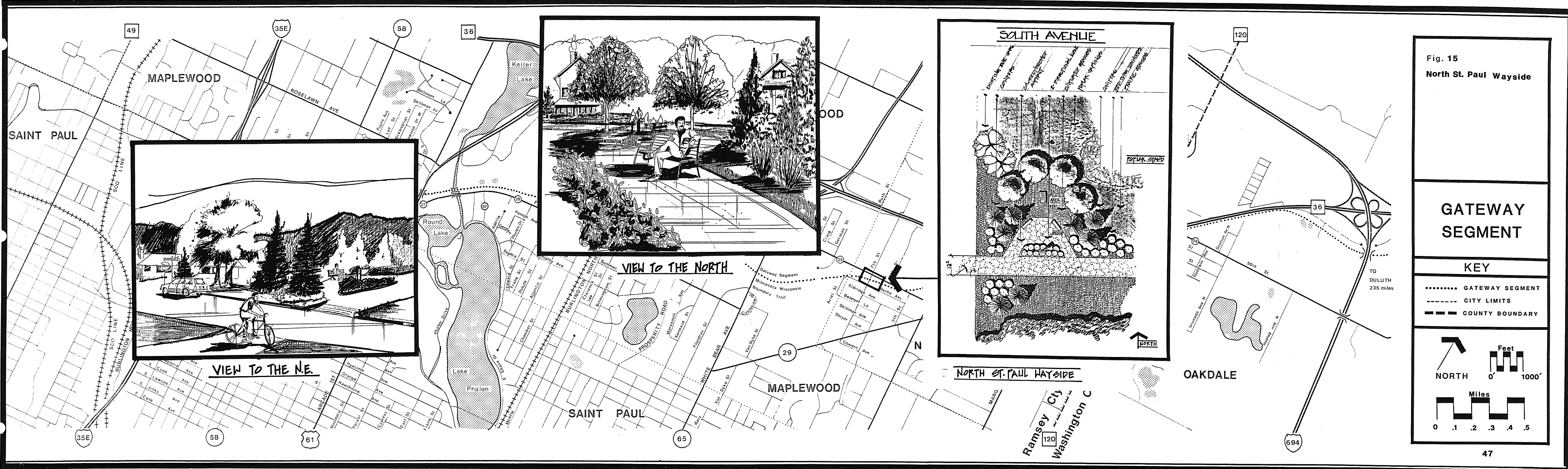
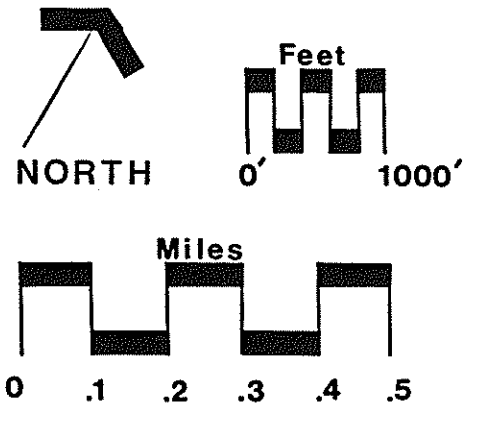


Fig. 15
North St. Paul Wayside

**GATEWAY
SEGMENT**

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- COUNTY BOUNDARY



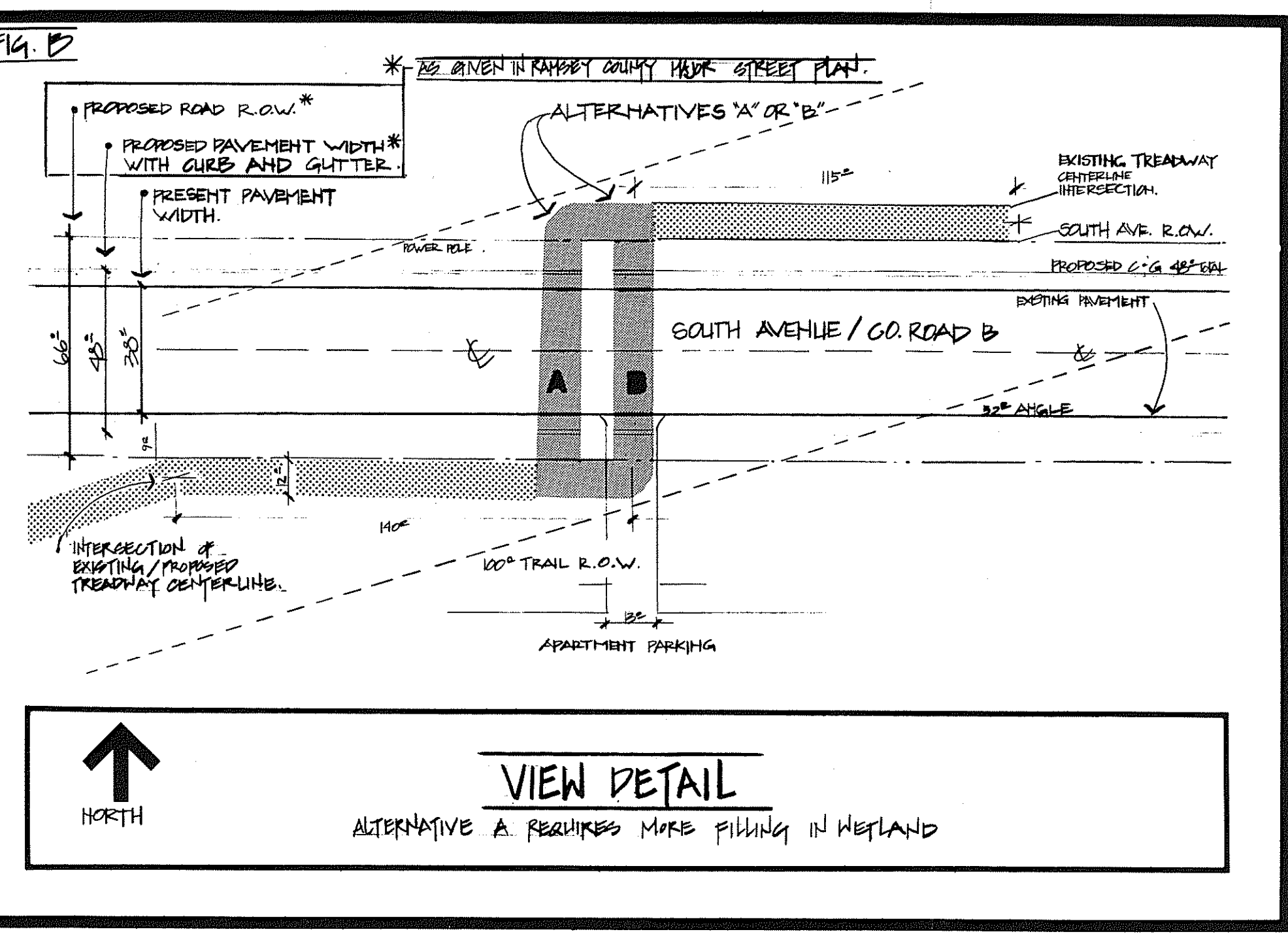
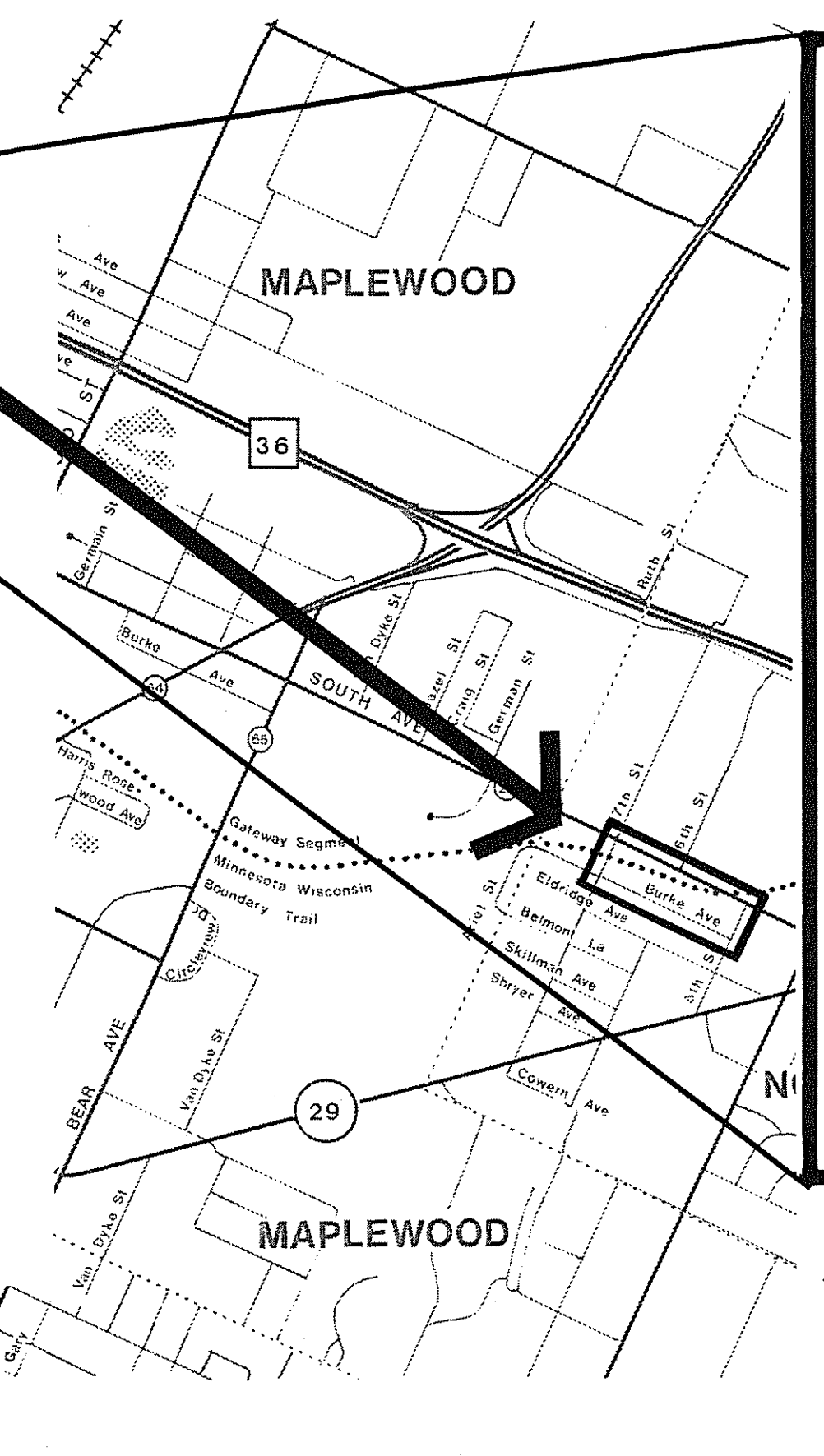
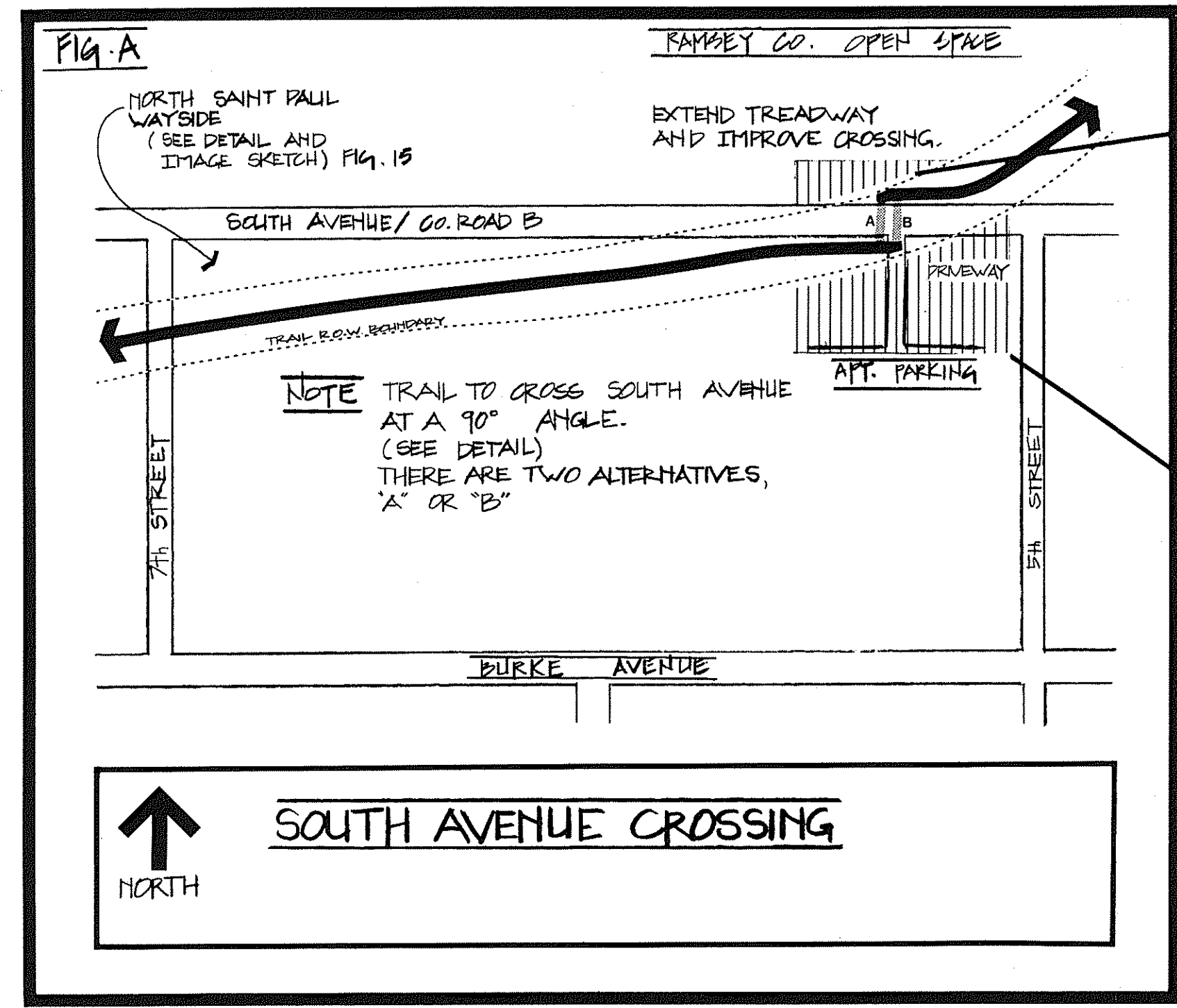
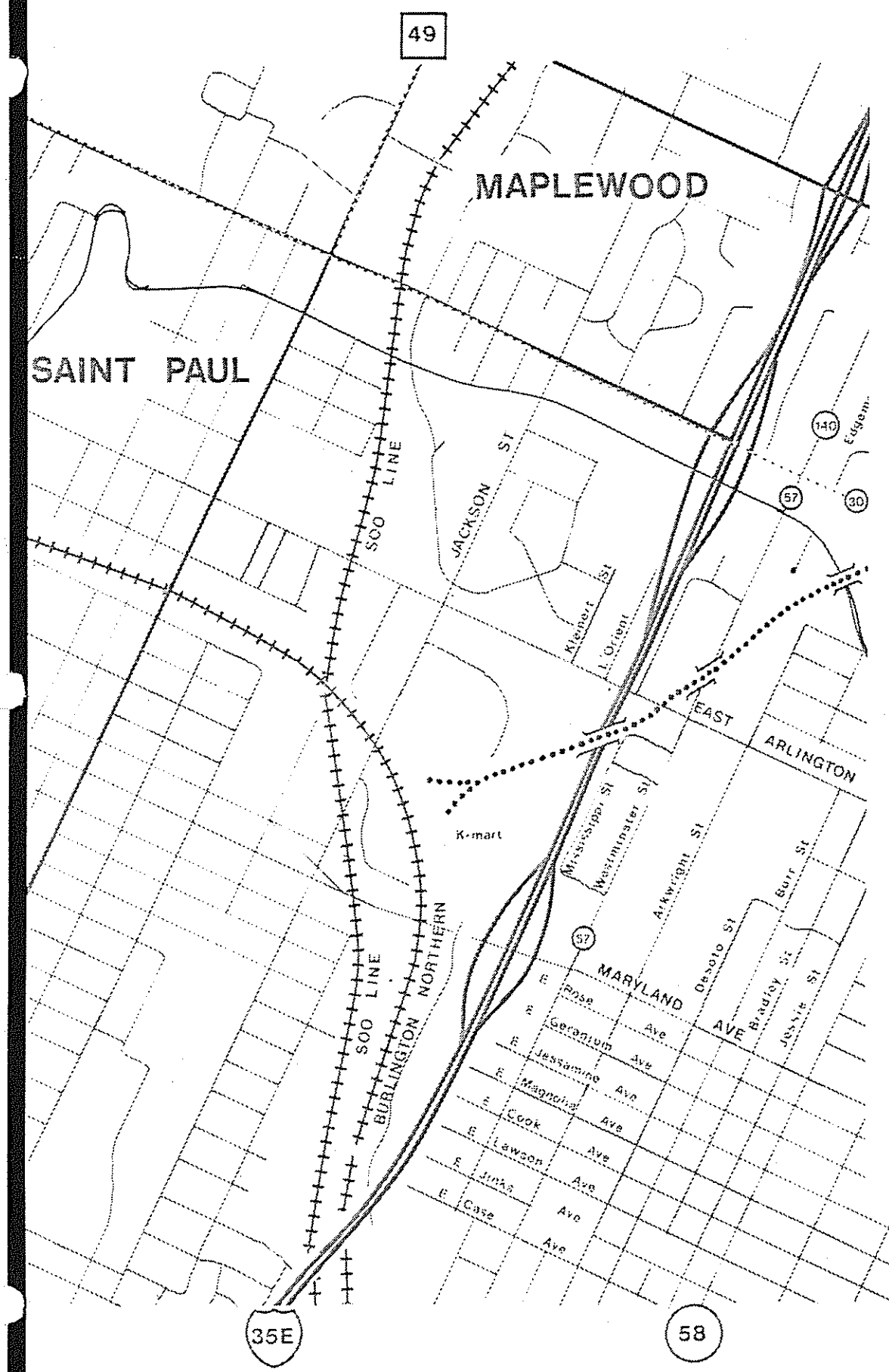


Fig. 16
South Avenue Crossing

GATEWAY SEGMENT

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- COUNTY BOUNDARY

NORTH

Feet
0' 1000'

Miles
0 .1 .2 .3 .4 .5

trucks, and customer vehicles. Anchor Block has proposed that the trail crossing be guarded by gates, and other measures might be needed. The DNR will work to achieve agreement with Anchor Block on a course of action which will safeguard the interests of both parties. This may include fencing to minimize encroachment and trespass, visual barriers, safety features, and leasing of part of the trail right-of-way to Anchor Block for inventory storage.

New curbs have been constructed by the City of North Saint Paul where the trail crosses First Street. The DNR will request that the city reconstruct these with curb cuts in order to make use of the trail more convenient for trail users.

Just east of the First Street trail crossing and south of the trail lies a city-owned youth baseball field (Franklin Park). According to the city the field is heavily used all week in summer. As it happens, the trail treadway lies at a higher elevation than the ball field and is ideally suited for viewing the ball games. The city is interested in placing bleachers on the hillside south of the treadway, and may be interested in placing barbecue pits there as well. City officials have recommended that the DNR establish a rest area along the trail at this point which would also serve local residents in conjunction with ball game activities (Figure 17).

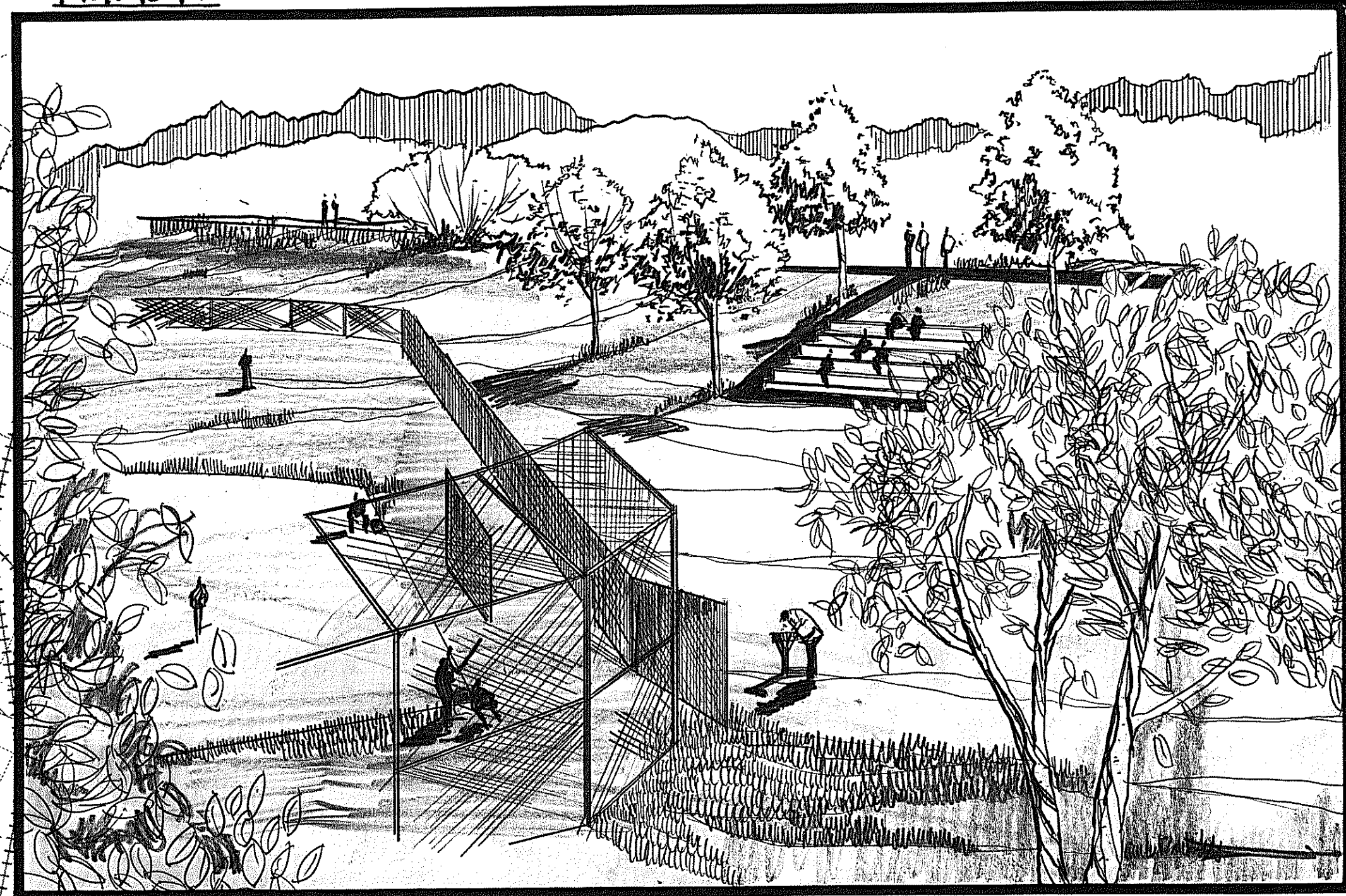
The DNR should level the site, establish grass as a ground cover, and plant shrubs and trees to present a pleasing appearance. The DNR should be receptive to the city's requests for space in the right-of-way for its legitimate needs. The DNR should supply several picnic tables

and benches. Since the city will benefit directly from this development, the DNR and city should consult regarding city assistance in keeping the area maintained. The city may be charged a fee based on the appraised value for its use of land in the corridor.

The city has also discussed with the DNR the possibility of erecting a toilet building and drinking fountain on this site. These clearly would enhance the site for city residents as well as trail users, and are quite worthy of further discussion. It goes without saying, however, that construction costs, security, and maintenance of such facilities are a serious concern. The DNR is willing to entertain such proposals but would require the involvement of the city in the project in order to assure an equitable distribution of costs and benefits to city and state.

The City of North Saint Paul, which recently completed a major renovation of its downtown area with the aim of attracting people to the city, has voiced concerns regarding the DNR's plans for future management of that portion of the Gateway Segment which closely parallels Highway 36. Generally this stretch lies between First Street and Century Avenue. The city has made a number of recommendations which, if implemented, will not only enhance the experience of trail users, but will also serve the local area by means of area beautification. Since the trail right-of-way is quite visible from the highway in this vicinity, local officials feel that development should aim at presenting a pleasing image which will reflect well on the city as well as the DNR, and have stressed their willingness to participate in development and maintenance.

Fig. 18A



VIEW TO WEST

Fig. 18B

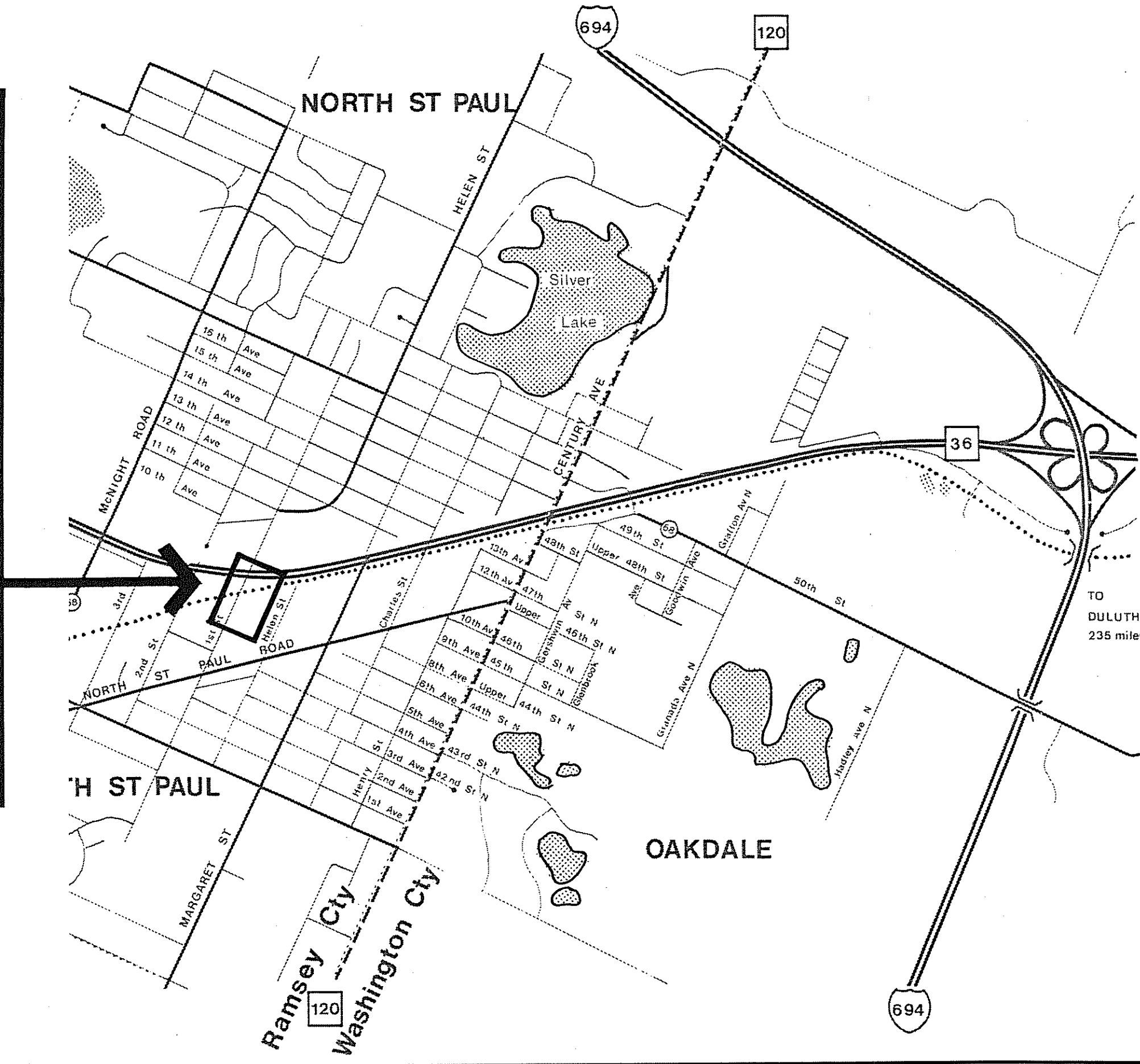
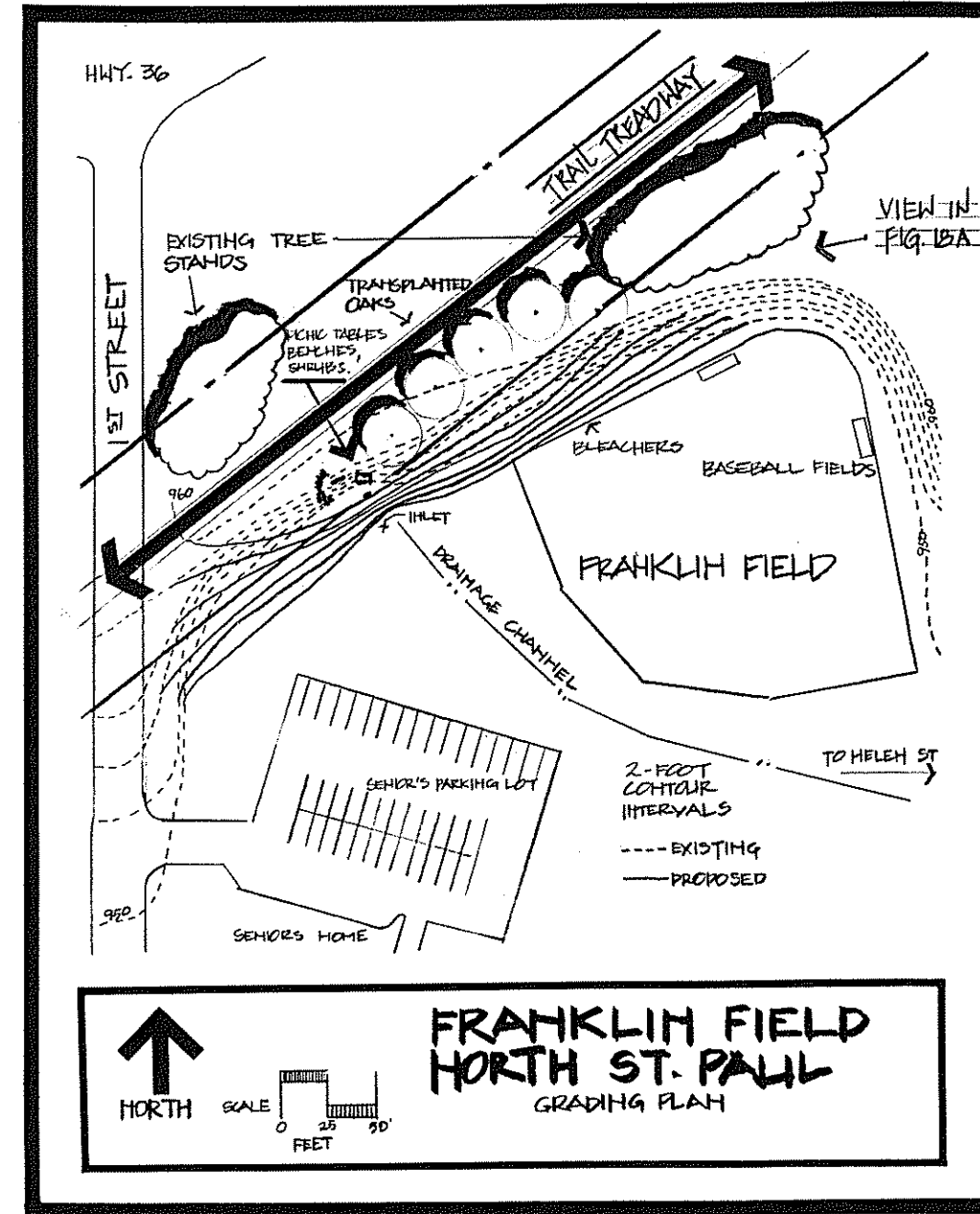
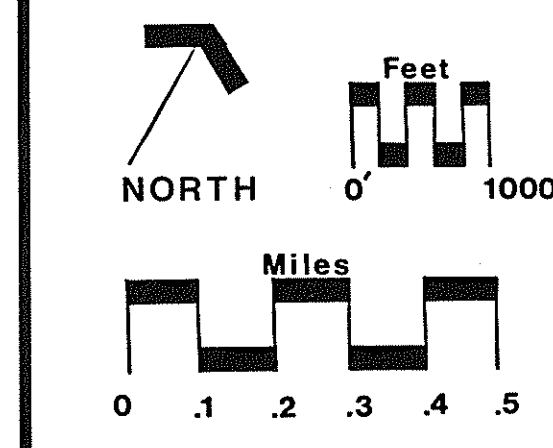


Fig. 17
Franklin Park Development

GATEWAY SEGMENT

- KEY
- GATEWAY SEGMENT
 - CITY LIMITS
 - COUNTY BOUNDARY



The city recommends the following:

1. That grass be established as the ground cover from First Street to Century Avenue.
2. That shrub and tree plantings be utilized to partially screen the corridor from Highway 36 in such a way as to beautify the area and create a separation between the trail's green space and the busy highway.
3. That benches and interpretive facilities be employed creatively to create a city park atmosphere in the corridor along Highway 36.
4. That the intersection of Margaret Street and the Gateway Segment be beautified and upgraded by means of landscaping and vegetation since Margaret Street is regarded as the main entrance into the downtown area from Highway 36. The placement in this location of one or more benches, a drinking fountain, and a kiosk to announce trail information, area services, and local events would considerably enhance visitation to the city as well as the trail user's experience (Figure 18). This should be a joint development between the DNR and the city. The DNR's contribution, in addition to the land, should include benches, landscaping, shrub plantings, and a kiosk.
5. That the DNR transfer to the city a portion of the right-of-way along its southerly boundary between Margaret and Charles streets for use as a frontage road to serve a new retail development in the vicinity.

On the other hand, the DOT has announced that an upgrade of highway 36 may be necessary before the end of the century. According to the District 9 20-year plan, a study will be done in the late 1980s to determine what major reconstruction, if any, will be necessary. In anticipation of the necessity of such work, the DOT has requested that the DNR transfer fee title to the entire width of the Gateway Segment right-of-way between First Street and Century Avenue in North Saint Paul. This would assure sufficient right-of-way width if the DOT's study finds that major upgrading, possibly including the addition of more driving lanes to Highway 36, will be necessary.

The DOT additionally cites the need to control road access to Highway 36, and notes that if it controlled the trail corridor no more roads could be built across it without its approval. The DOT has offered to allow trail development and operation to continue in the corridor until such time as the land is needed for highway expansion, at which time the trail would be rerouted at the DOT's expense as part of the highway upgrade.

The DNR wishes to cooperate with the DOT in its mission of providing needed facilities for the motoring public, and will do so to the extent possible and appropriate. At the same time, since the DOT does not yet know whether or how much additional right-of-way for Highway 36 will be needed, the DNR is reluctant to transfer ownership of the land in question.

The situation is complicated by the fact that the City of North Saint Paul also has made recommendations for the disposition of the corridor (above). These are not necessarily inimical to the potential highway upgrade, but need to be considered in the equation as the DNR seeks to provide for the best interests of the public.

While the DOT requests a fee title transfer of trail right-of-way, the City has also requested that the DNR transfer a small portion of the same trail right-of-way, in this case along the southerly boundary of the trail right-of-way between First and Charles streets. The City's most pressing need is between Margaret and Charles streets. The remainder is not needed at this time but may be requested in the future (Figure 19).

The DNR has responded to the DOT's request by expressing its preference for retaining title to the corridor until such time as the

Fig. 18 A

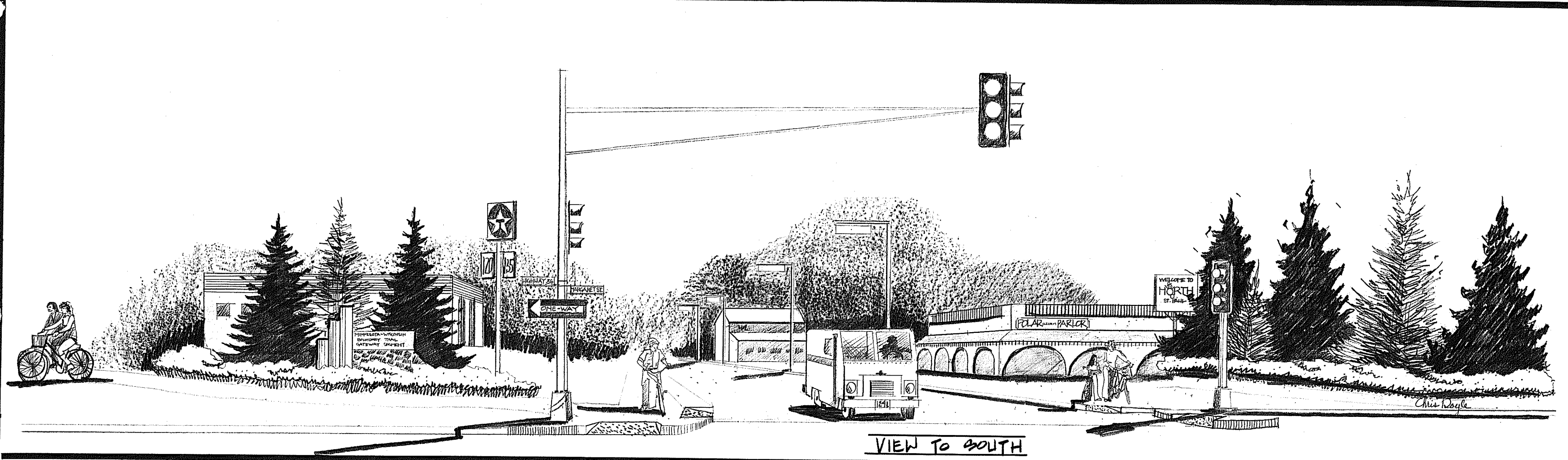


Fig. 18 B

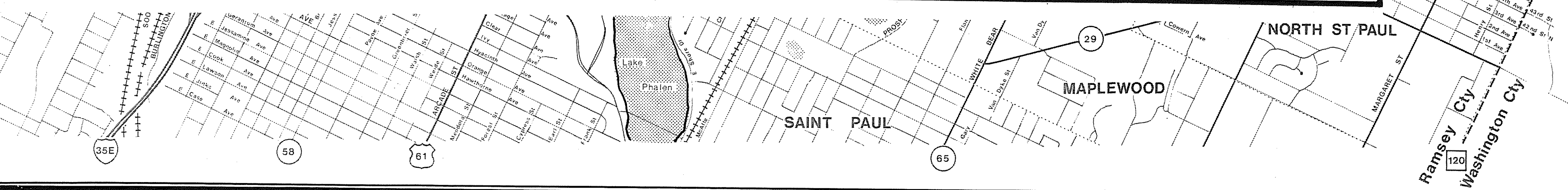
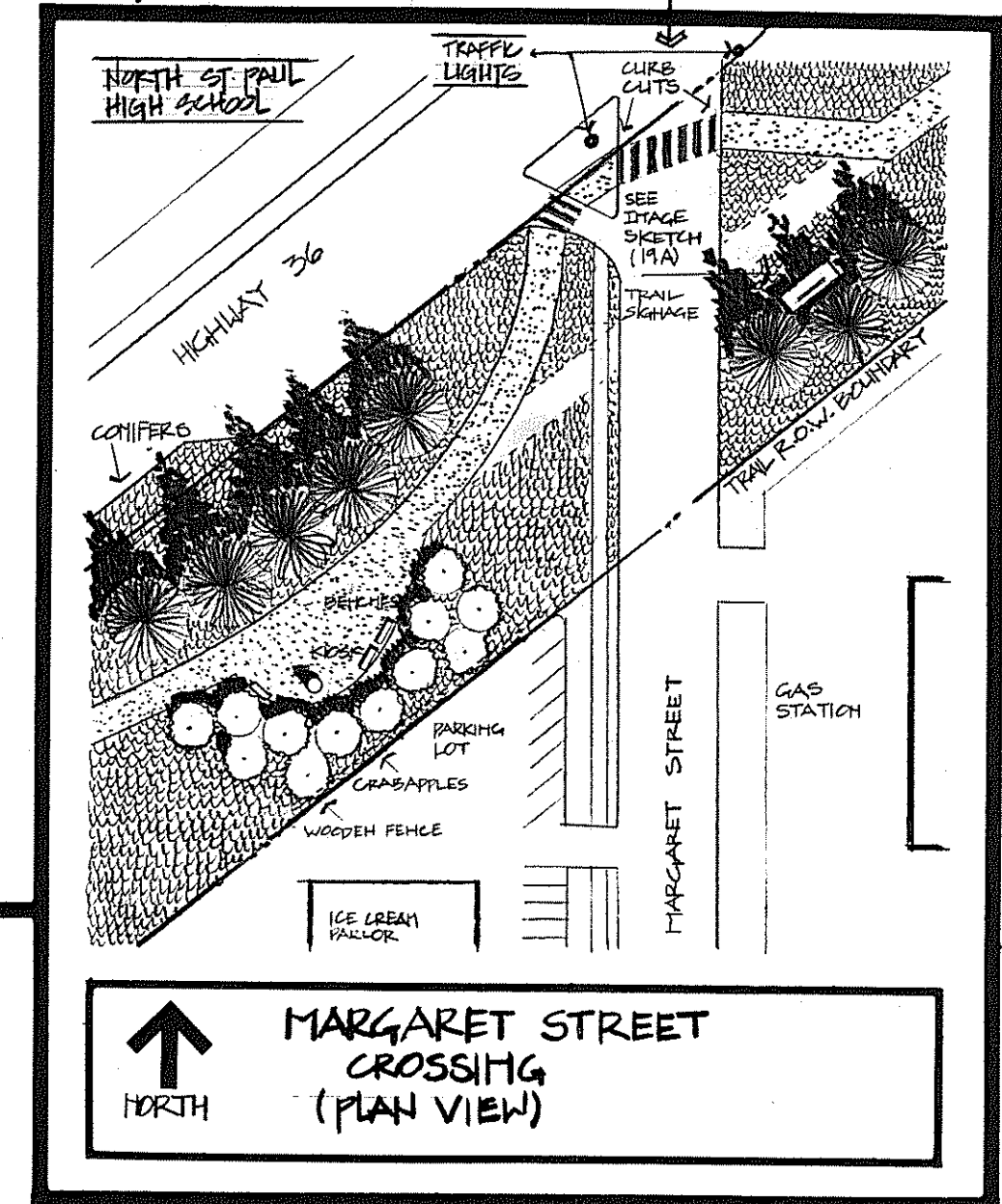
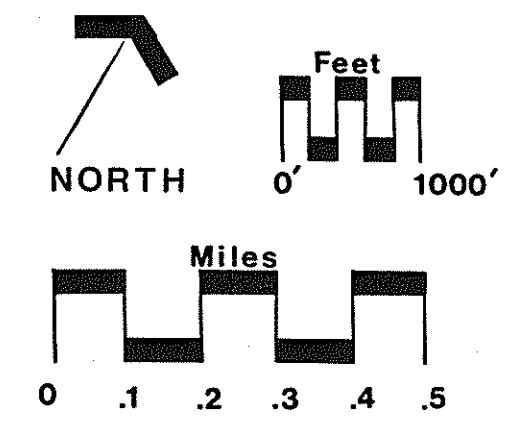


Fig. 18
Margaret Street Crossing

**GATEWAY
SEGMENT**

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- COUNTY BOUNDARY



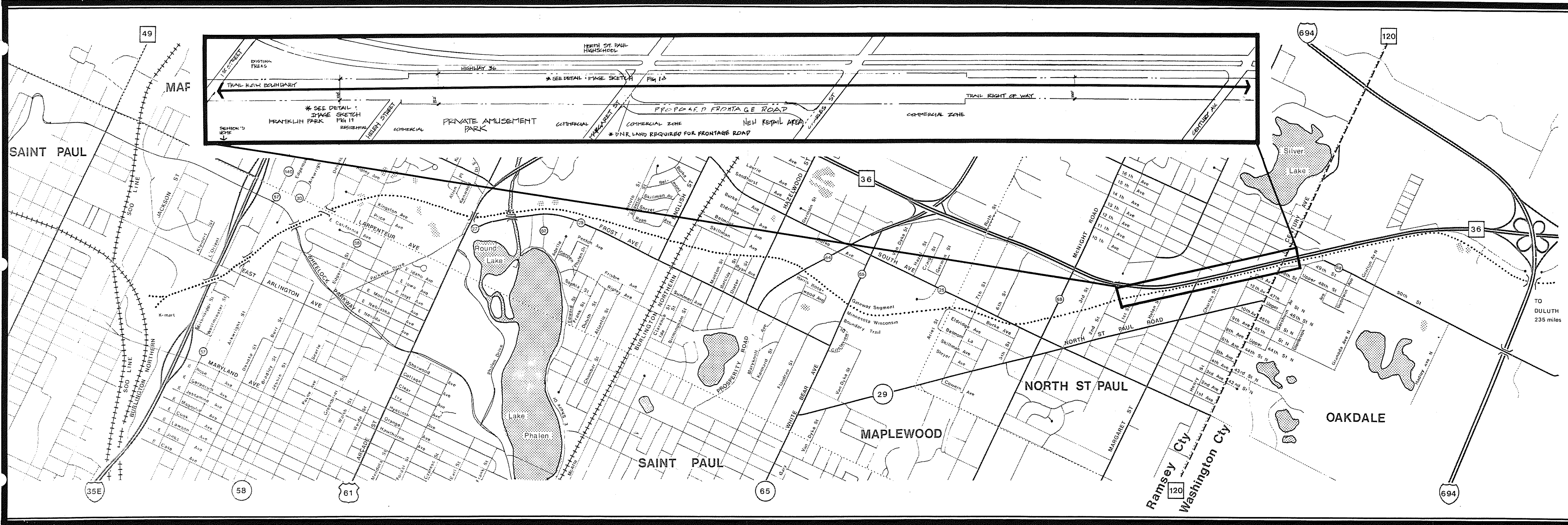
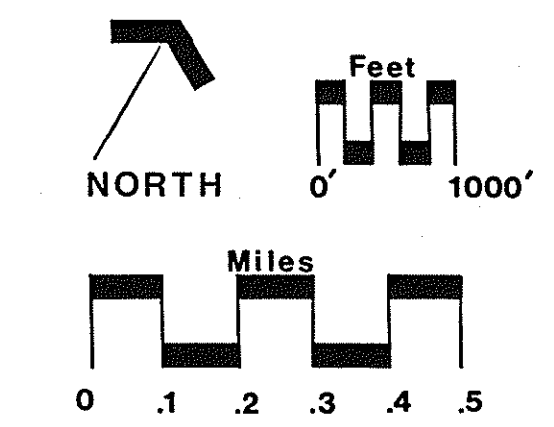


Fig. 19
North St. Paul Proposed
Frontage Road

**GATEWAY
SEGMENT**

- KEY**
- GATEWAY SEGMENT
 - CITY LIMITS
 - COUNTY BOUNDARY



DOT has decided whether Highway 36 will be upgraded, and has drawn up plans illustrating its intentions. In order to control road and driveway access across the trail corridor the DNR has offered to transfer to the DOT fee title to a strip of trail right-of-way adjacent to the highway (width subject to discussion) which is not needed for trail development and operation, and which would serve as a barrier to transverse road construction. The DNR has further offered to subject any new road crossing requests in the area to DOT review and comment.

Negotiations are pending as of this writing. This plan recommends staff level discussions among the three affected agencies with the aim of resolving the points at issue. Timetables for necessary studies and decisions should be generated by this group, and then submitted to management for approval.

Because several entities (including the DNR) have proposed dispositions for the trail right-of-way between First Street and Century Avenue which tend to be in conflict with one another, the DNR does not intend to hurry into a decision on the matter. The DNR does intend that, when all parties have completed their contemplated work in the vicinity, a high-quality state trail (the Gateway Segment) will exist in the area, not necessarily on the railroad grade centerline.

At both Margaret Street and Century Avenue (State Highway 120), the location of the trail immediately adjacent and parallel to Highway 36 makes the street crossings dangerous and inconvenient for trail users. The volume of traffic on each street (ADT counts of 2,313 and 9,882, respectively), assures that whenever northbound traffic is stopped at the traffic lights on Highway 36, cars back up over the trail, blocking

it. Further, the trail user must watch for traffic from four directions when crossing (see Figures 18b and 20).

The DOT has agreed to work with the DNR in providing a safe crossing at the traffic lights by diverting the treadway and providing curb cuts and striping on the pavement (Figures 18 and 20). DNR personnel should work closely with the DOT when this work is done to ensure a satisfactory result. It should be noted that if Highway 36 is upgraded to freeway standards, the DOT plans to construct a grade separated interchange for the 120-36 intersection. This may require a complete relocation of the trail in this vicinity.

This plan adds the additional recommendation that shrubs and trees planted in the corridor in this vicinity should be of the types which can provide food and cover for songbirds. This, again, will enhance the experience of people who use the trail in this area.

The master plan for the Minnesota-Wisconsin Boundary State Trail provides for a trailhead in the northeast quadrant of the intersection of I-694 and 50th Street (County Highway 68) in Oakdale. This location is remote from the trail and provides for a feeder road to make the connection. It is here proposed that this trailhead not be built, and that a parking lot be placed instead within the Gateway Segment right-of-way west of I-694 (Figure 21). As discussed earlier, horseback traffic will use the right-of-way east of Century Avenue, and this traffic can use this proposed parking lot as its destination or starting point. This parking lot should be constructed to be useable by horse trailers.

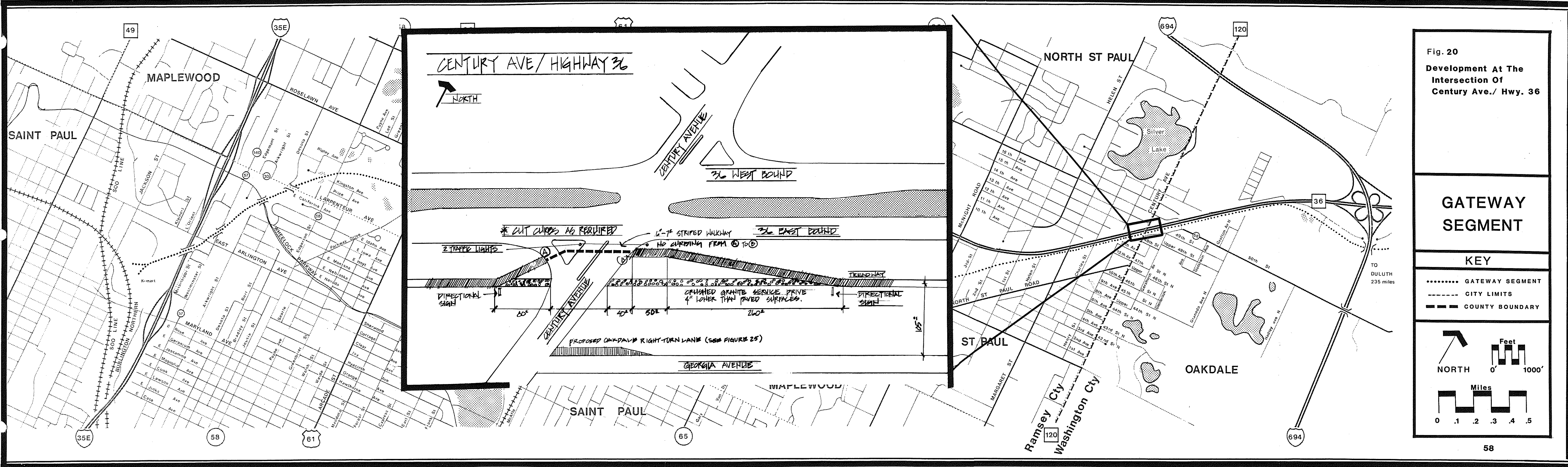
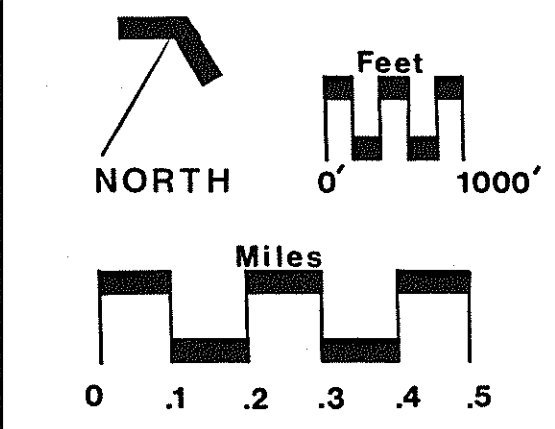


Fig. 20
 Development At The
 Intersection Of
 Century Ave./ Hwy. 36

**GATEWAY
 SEGMENT**

- KEY**
- GATEWAY SEGMENT
 - - - - - CITY LIMITS
 - — — COUNTY BOUNDARY



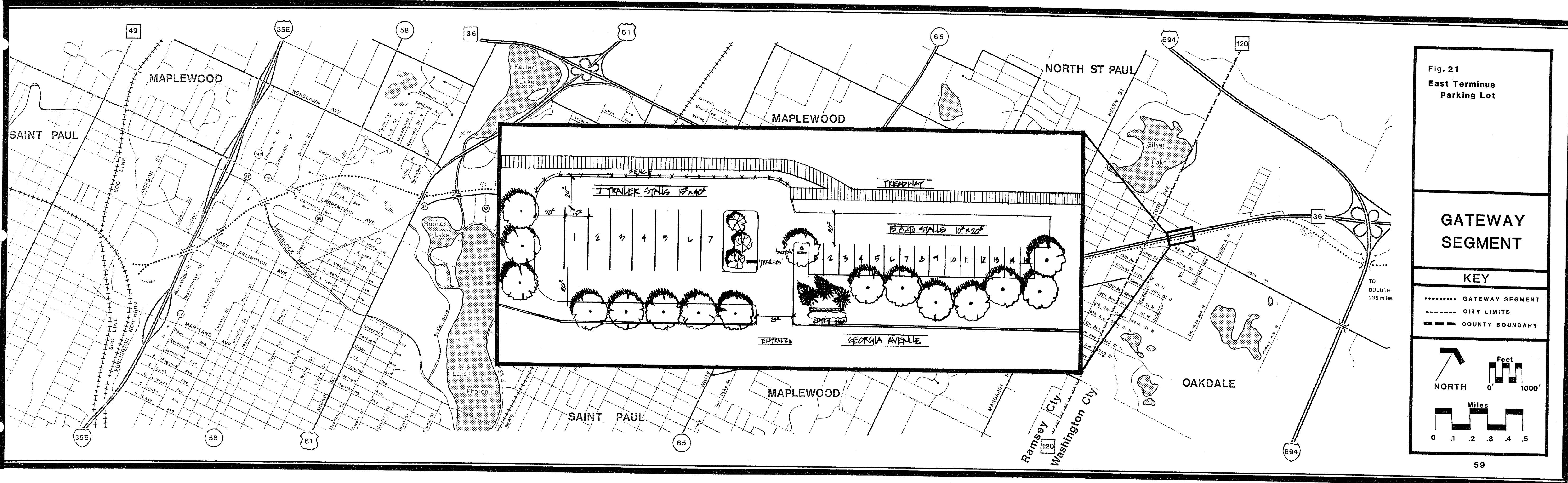
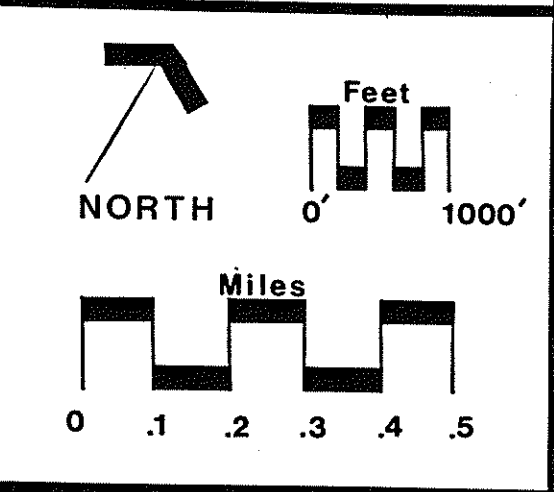


Fig. 21
East Terminus
Parking Lot

**GATEWAY
SEGMENT**

- KEY**
- GATEWAY SEGMENT
 - CITY LIMITS
 - COUNTY BOUNDARY



The City of Oakdale has requested that a spur connection be established from the trail in a southerly direction to several city parks (Figure 22). The DNR endorses this proposal but cautions that state financial involvement in construction projects is generally limited, of necessity, to state-owned land. Several alternatives for connector routes to Oakdale Park have been discussed, some off-road and at least one following a city street. Discussions should continue to determine the proper routing and level of involvement of the interested parties.

The City has also proposed to extend 50th Street northerly to an intersection with Highway 36. This new street would cross the Gateway Segment, and would require a slight southerly deviation of the treadway (Figure 22). The DNR should grant the necessary easement for this road but act to ensure that trail user safety and convenience will be assured at the crossing. Projected traffic levels on the new street, sight distances, controls needed, and other factors should be considered.

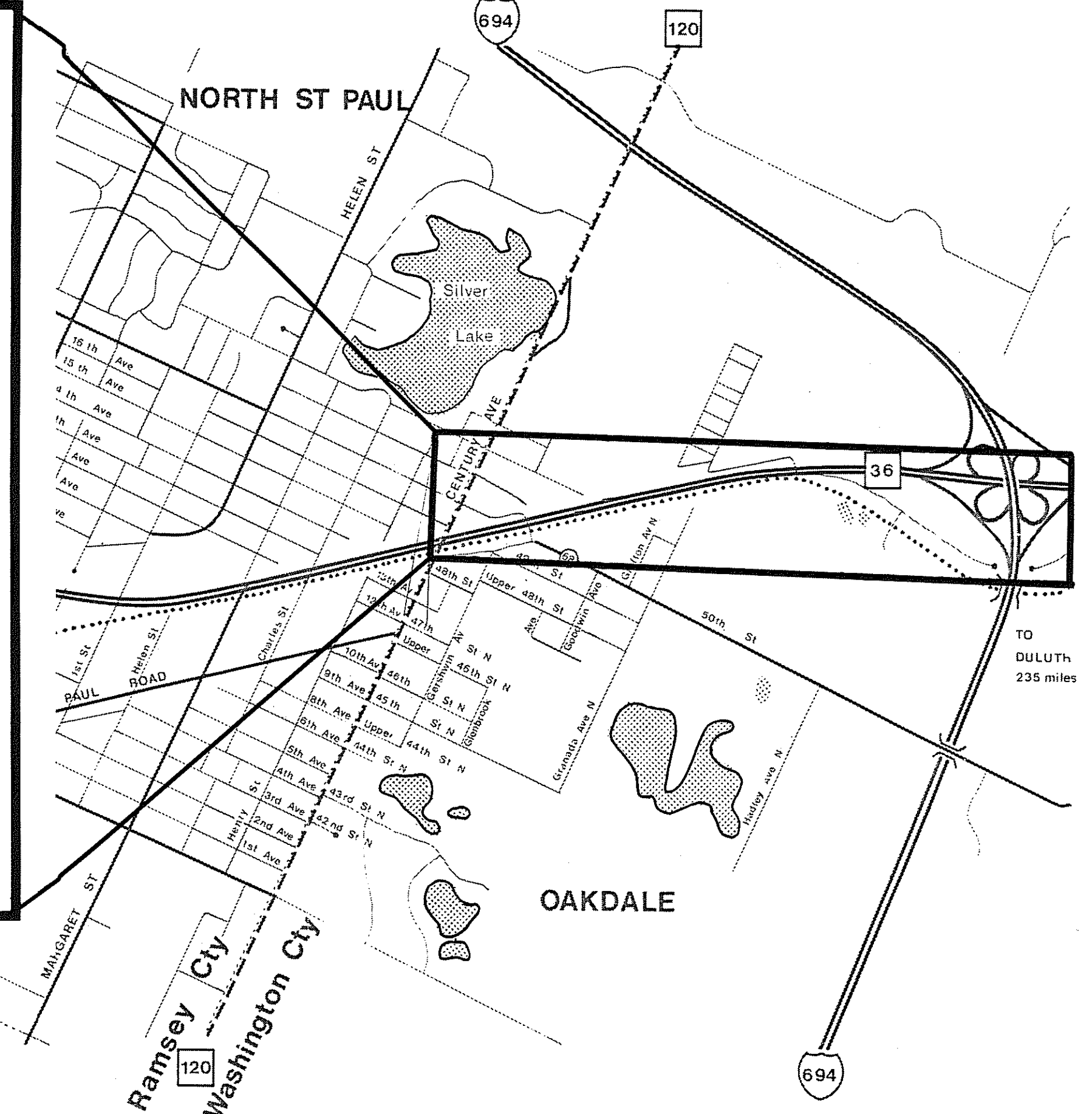
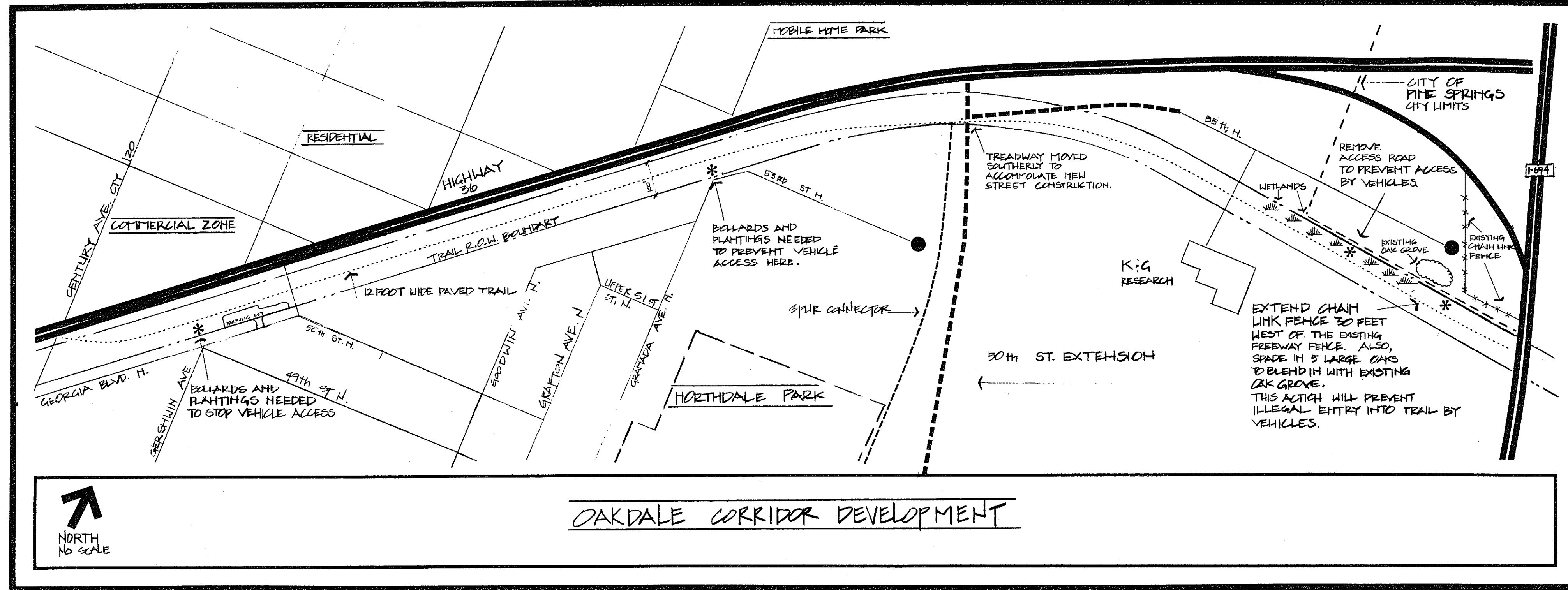
Treadway. The surfacing material used on the main treadway should be asphalt. The expected high level of use on the Gateway Segment requires the use of durable materials whose long-term maintenance costs can be held to a reasonable level.

The main treadway should, additionally, be twelve feet wide, except where site conditions make this impossible. Again, this is due to the high use levels expected. Convenience and safety of trail users will be enhanced by this course of action.

At this time, no need is foreseen for a second treadway, except possibly for a gravel shoulder for horseback riding east of Century Avenue. If the need for one develops in the future an amendment to this

plan can be considered. Striping or treadway separation may be needed at some future point in order to separate directions of traffic or user groups. Operational experience will be the best indicator of this need.

Right-Of-Way Modifications. A considerable number of recommendations have been made by state and local agencies and by private parties regarding modifications of the trail right-of-way. These include one major and several minor realignments, narrowing of the right-of-way in several locations, and a number of sanctioned encroachments. These are summarized in Figure 23.



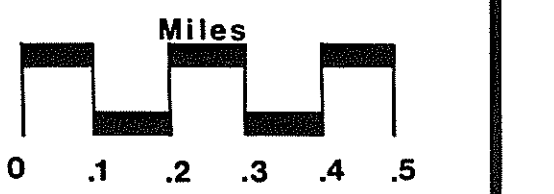
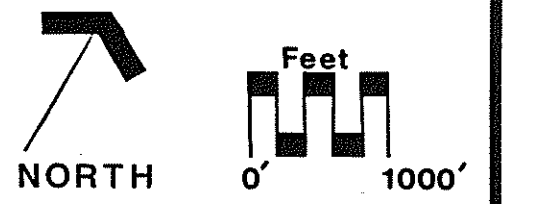
OAKDALE CORRIDOR DEVELOPMENT

Fig. 22
Development In The
Oakdale Corridor

**GATEWAY
SEGMENT**

KEY

- GATEWAY SEGMENT
- CITY LIMITS
- COUNTY BOUNDARY



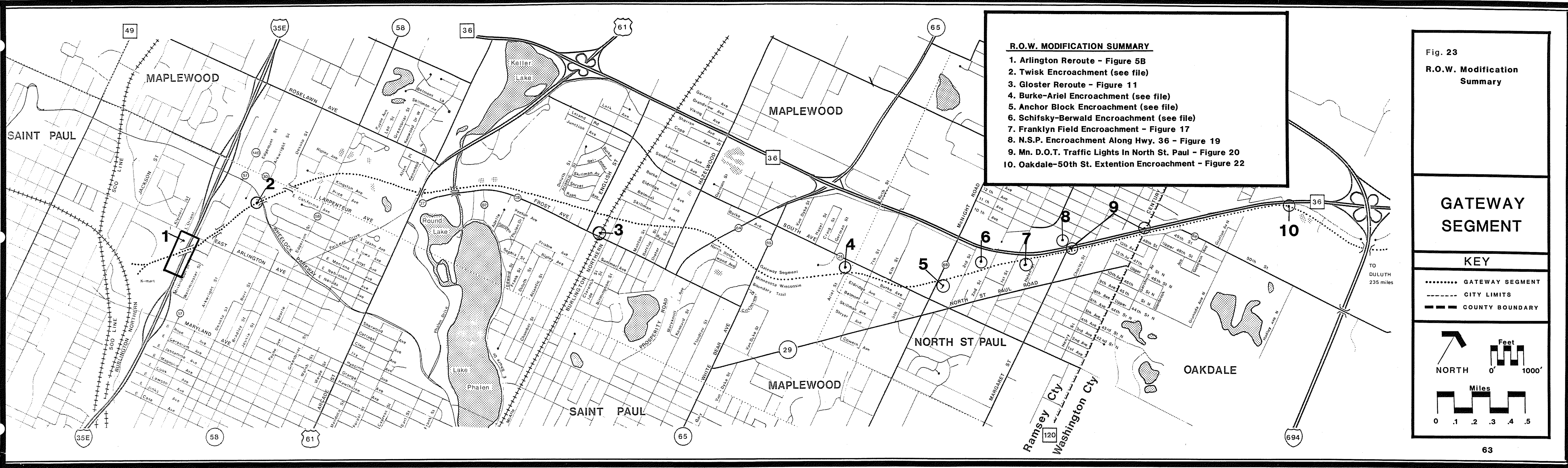


Fig. 23
 R.O.W. Modification
 Summary

OVERALL DESIGN AND MANAGEMENT CONSIDERATIONS

This section outlines an overall design and management philosophy, with specific examples as appropriate, which should be adhered to in the development, operation and maintenance of the Gateway Segment. This will assure a safe, satisfying experience for trail users as well as fair and equitable treatment of all affected by the trail.

1. Accessibility

In general, it is a fair statement that state trails should be as accessible as possible within the limits imposed by the need to properly manage them. What this means, among other things, is that trails should be easy to find and convenient to enter and use without the need to use private driveways and public roads as parking lots and access points. Further, the trail and facilities should be barrier-free to facilitate handicapped access and use.

The fact that there are numerous street crossings along the Gateway Segment creates both problems and opportunities for the DNR. On the one hand, direct interchange between street and trail is facilitated for bicyclists by this feature. On the other hand, some users will be tempted to park their cars at these crossings although no formal parking facilities are provided.

The DNR will consult with road authorities regarding this potential problem. Crossings can be signed to prohibit vehicle parking where it would be troublesome. If this is done the signage should direct users to the nearest legitimate parking area. Trail parking lots will be provided initially at the east and west ends of the Segment. The DNR should remain alert to the possibility of future parking needs along the

right-of-way, which may depend upon use patterns which emerge after development. Since the right-of-way is 100 feet or more wide in most locations, sufficient space for parking areas generally exists on state-owned land in most areas, should it be necessary.

The use of public transportation to get to the trail should be encouraged. Figure 24 shows the Metropolitan Transit Commission (MTC) bus routes which lie in the vicinity. Promotional literature which will be developed for the Gateway Segment should give this information, not only for the benefit of Metro Area trail users, but also for those who come into Saint Paul on the trail who will need transportation when they arrive. The MTC's route and time information phone number should be included to facilitate trip planning and the literature should indicate locations of public telephones convenient to the trail.

Accessibility also refers to the interchange of user traffic between the trail and the communities it passes through (see BENEFICIAL INTEGRATION). The DNR's operating strategy for this trail should strive to make this interchange as free-flowing and convenient as possible. The communities and trail have much to offer each other, and this potential should be exploited to the maximum practicable. The DNR should work with local communities to identify facilities and services which will be of interest to trail users and disseminate the resulting information by means of kiosks, maps, and promotional literature. Joint use of facilities will enhance the trail user's experience and benefit the community as well. Local businesses should be encouraged to tailor their products and services to the needs of trail users. Use of this trail by recreationists and commuters will be high and communities stand to benefit greatly by an enlightened approach to the potential thus represented.

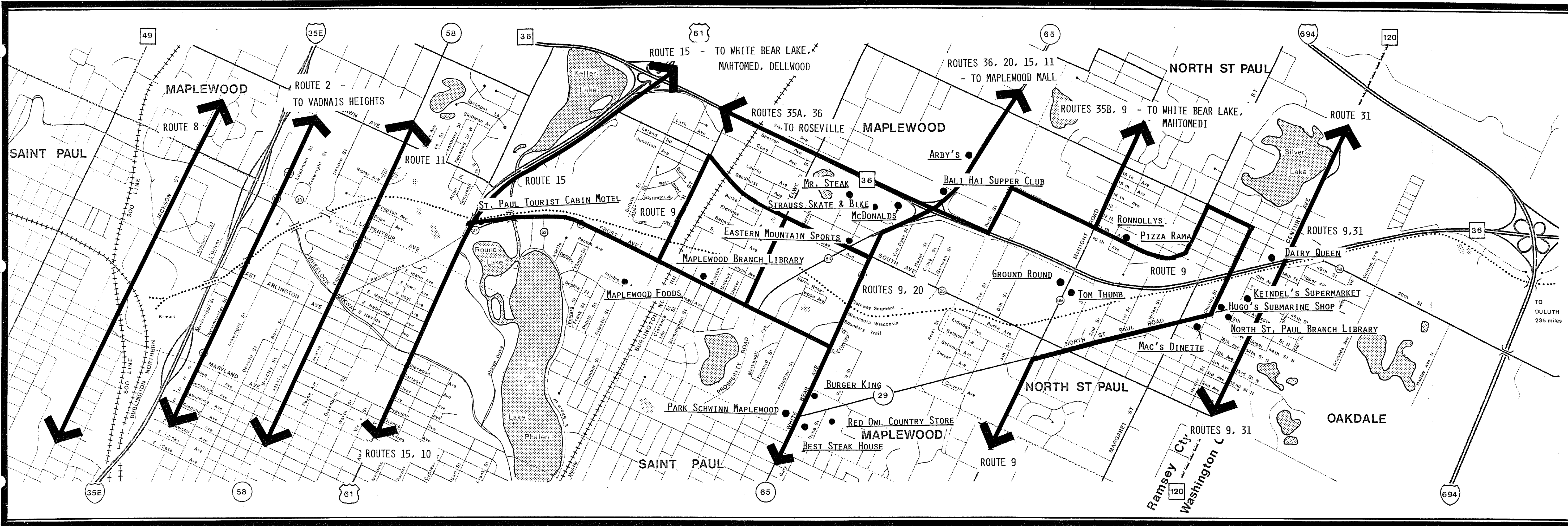


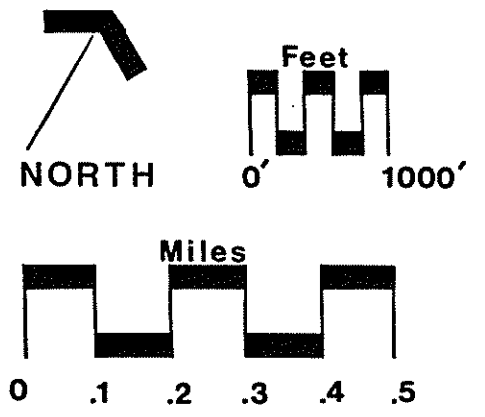
Fig. 24

NOTE: FURTHER INFORMATION AVAILABLE FROM MTC - 827-7733

GATEWAY SEGMENT

KEY

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- CITY LIMITS
- COUNTY BOUNDARY



Unauthorized access to the trail should be discouraged by a number of means. The elimination of illegal uses can be pursued by means of signing, barricades, and ticketing of offenders (see LAW ENFORCEMENT). The use by otherwise legitimate trail users of private or restricted property to access the trail can be handled in much the same way. Barricades across the trail should be employed only where absolutely necessary to control a serious problem, and should not unduly hamper the passage of official vehicles.

2. Invasion of Privacy

Under the best of circumstances and with the best of intentions, trails are capable of disturbing the privacy of adjoining landowners. This can occur when a trail user approaches a house in order to get a drink of water, use the phone or borrow tools. The DNR has found through surveys that this happens often along trails and that a small, but significant, number of adjoining landowners are annoyed by it.

Invasion of privacy can also result from close proximity of the trail to a house or yard. People can feel inhibited, even threatened, in such circumstances, even if trail users keep their distance and do not make direct contact.

Finally, trail-related noise can disturb those property owners located closely adjacent to the trail, especially at night.

Three separate potential problems exist here, the first being the trail user who actively seeks out and approaches a house for some reason. To alleviate this problem the DNR should supply in the trail right-of-way those services and amenities for which the trail user might otherwise approach a house. This can be done by providing or directing users to existing drinking water and toilet facilities, shady areas,

public telephones, and food and lodging establishments. If these are easy to get at, the need to seek them from adjoining landowners will be reduced. Signage can also be used to encourage trail users to stay on the trail.

The second potential invasion of privacy problem is represented by the trail user who unwittingly or inadvertently annoys property owners because the trail lies in close proximity to a yard or dwelling. If the landowners so request, the DNR should seek to alleviate the problem by means of vegetative or man-made visual and physical barriers, depending upon what is judged to be necessary. A number of adjoining homeowners have already requested such barriers and the DNR should follow through by consulting with these homeowners to determine if the barriers are warranted. Such barriers have the added virtue of, in some cases, alleviating the direct approach problem by discouraging users from leaving the trail.

Finally, trail-related noise can be a nuisance, particularly at night. Since the trail is non-motorized by law, a significant potential for noise will be eliminated just by proper trail management. Regarding other noise sources, it is well to remember that the more or less urban setting of this trail means that its environs will generally be noisier than would be the case out in the country. Often the noise heard emanating from the trail will be no worse than that coming at any given time from the average city street. If repeated noise disturbances, from whatever trail source, cause problems for adjoining homeowners or trail users, the DNR should take appropriate action. This may involve signage, user education efforts, enforcement actions, barriers, a curfew, or other action as appropriate.

3. Conflicting and Competing Uses

The possibility that legitimate uses will conflict with one another on the Gateway Segment appears to be low. Since snowmobiling will be allowed only in the vicinity of the I-694 underpass, conflicts between this use and ski-touring will be minimal. In summer, conflicts between bicyclists and foot travelers will be minimized, at least in the early going, by the width of the 12-foot treadway.

One potential conflict identified in the planning process is between horseback riders and bicyclists. Although only about a mile of the Gateway Segment is recommended to be opened to horseback riding, both uses will continue east of I-694. The DNR thus needs to be concerned about providing proper management for these uses.

The DNR state trail policy document finds that horseback riding conflicts with bicycling and that the two uses should not be accommodated on the same treadway unless the master plan finds such accommodation acceptable.

This plan recommends that the DNR use its best judgement in selecting a means of accommodating horse traffic east of Century Avenue which will least conflict with bicyclists. The DNR should subsequently monitor the situation along this stretch to determine the success of the selected course of action, and should take appropriate action depending on the outcome of this monitoring, including selection of another option, if feasible, or the termination of horse use if it becomes an unmanageable problem.

The main treadway should normally be groomed for cross-country skiing in winter if sufficient snow is present. However, under certain conditions, and given the density of population along the trail, it may

be found to be more appropriate to maintain the trail as a walking and bicycling route in winter, especially in low snow years. The DNR should remain alert to the public's needs in this area and respond accordingly.

Special events within the right-of-way, such as marathon runs, dogsled races, etc., or farmer's markets, easter egg hunts, etc., must be handled on a permit basis. When solicited for such a permit, the DNR should base its decision on such considerations as the necessity for trail closure to the general public, possible degradation of the trail and other resources, and general inconvenience to the trail-using public. A reasonable fee should be collected for privately-sponsored events to assure the public a return on its investment.

Non-recreational (i.e., commercial, industrial, or agricultural) uses of the right-of-way can and often do compete or conflict with the primary recreational use. There often are legitimate requests from adjoining property owners for land within the right-of-way. As a first step in dealing with this question, this plan makes recommendations for divestiture of land within the right-of-way not needed for trail purposes (Figure 25). Further, the Soo Line Railroad Company granted numerous easements, leases, and licenses to various parties during the years when the line was active. The DNR will honor these until their expiration date, at which time a determination will be made to renegotiate or drop them.

In the future, the DNR may be requested to grant permission for access to or use of various portions of the right-of-way. In seeking to further the spirit of beneficial integration and be a good neighbor, the DNR will consider such requests and will honor them when so doing would not create large management problems or degrade the experience of the

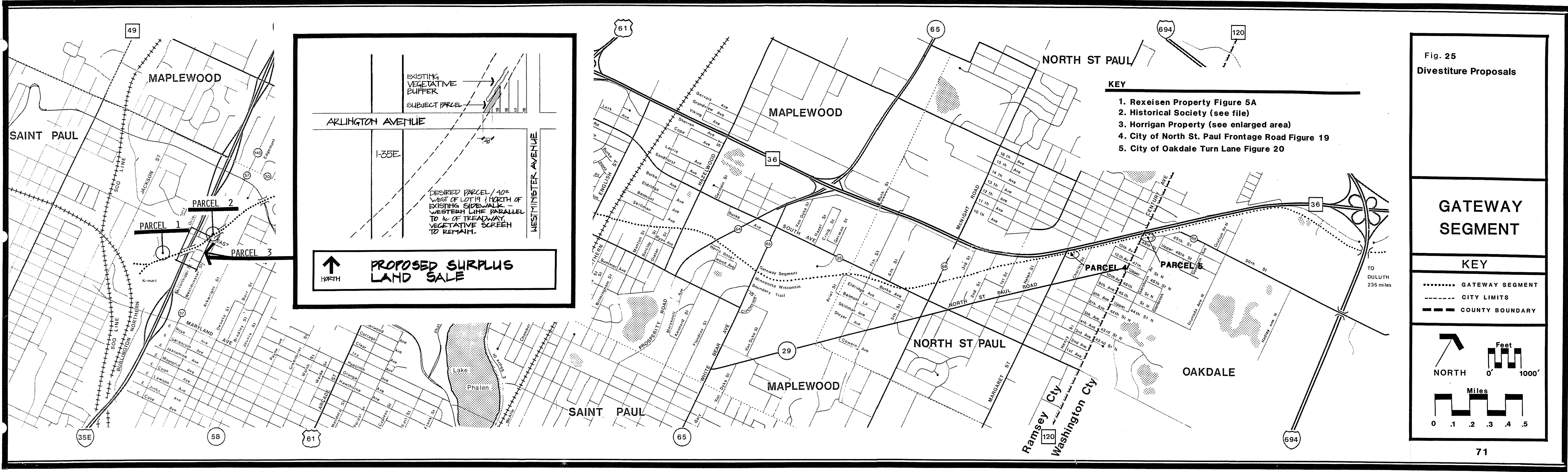


Fig. 25
Divestiture Proposals

- KEY**
1. Rexeisen Property Figure 5A
 2. Historical Society (see file)
 3. Horrigan Property (see enlarged area)
 4. City of North St. Paul Frontage Road Figure 19
 5. City of Oakdale Turn Lane Figure 20

GATEWAY SEGMENT

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 - CITY LIMITS
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North Arrow

Feet
0' 1000'

Miles
0 .1 .2 .3 .4 .5

trail user. Esthetic and environmental considerations should be included in the DNR's analysis. Any such permission should be by lease, easement, license, cooperative agreement, or other duly recorded and executed written instrument.

Unsanctioned encroachments present a quite different situation. There are places along this right-of-way where private individuals have occupied the right-of-way for many years, apparently without written authority. In most cases these are places where yards have been extended into the right-of-way and kept mowed, or gardens have been established. In those cases where such encroachments are unsanctioned by a written agreement as of January 1, 1988, adjoining landowners will be informed that they must have a written agreement with the DNR in order to occupy the DNR property for any reason. After July 1, 1988, unsanctioned encroachments will be subject to removal by the DNR at the encroacher's expense. It will be the job of the regional trails and waterways coordinator to affirmatively inventory the encroachments, notify landowners of the new policy, and handle the leasing process.

In those cases where requests are made to use parts of the right-of-way, the DNR should give consideration to the requests based upon the use's expected effect upon the trail and its users. In no case will the resulting right-of-way available for trail purposes be narrower than 30 feet. The DNR will, in addition, not usually relinquish fee title to land within the right-of-way, but lease it instead, unless a land exchange is involved.

Commercial or industrial activities which would necessitate more or less constant vehicular use of the trail will be prohibited.

4. Support Facilities

Trail facilities such as restrooms, campsites, and rest areas serve a number of functions, among which are to contribute to the safety, convenience, and well-being of trail users, and to reduce the tendency of trail users to impose upon adjoining landowners for services. This will be especially important on a trail which is located in as densely populated an area as the Gateway Segment. It will be an obvious temptation for trail users to cut across yards unless sufficient convenient accesses are available and necessary barriers are employed. The potential for harassment of adjoining landowners by trail users who want to use the phone or bathroom, get a drink, or just talk is also correspondingly high.

The DNR will need to remain sensitive to the unsatisfied service needs of Gateway Segment users. Some of these unmet needs will manifest themselves as problem areas along the trail, as outlined above. New facilities should be installed as needed to deal with such situations as they arise.

At present a motel in Maplewood is the only overnight lodging facility located in close proximity to the trail. There are, of course, numerous hotels and motels in the downtown Saint Paul area, which is within two miles of the western terminus of the Gateway Segment.

Since no public campgrounds exist near enough to the trail to be conveniently accessible to trail users, the DNR should prepare an area services guide which lists overnight lodging facilities such as hotels, motels, hostels, bed and breakfast inns, etc., in the vicinity of the trail. This will be especially important for the long-distance traveler since the next nearest lodging facility on the Boundary Trail (after the

motel in Maplewood) is the Pine Point Park camping area in Washington County, about 12 trail miles away.

Detailed design and construction specifications for such things as treadway paving, drainage, signing, and support facilities, are addressed in the DNR Trails Manual. The construction, maintenance and operation of the Gateway Segment will be in conformance with this manual.

5. Vegetation Management

The vegetation in the Gateway Segment right-of-way will need to be managed on a continuing basis in order to provide the best possible recreational experience for users and present the most favorable image possible to the public.

The trail will be mowed to a distance of five feet on each side from the edge of the treadway as a matter of routine. Also, encroaching and overhanging brushy growth will be kept trimmed as per specifications in the Trail Manual. But in addition to this an affirmative program of vegetative management should be implemented which takes note of growth characteristics, weed problems, and outstanding scenic potentials and combines this knowledge with specific management techniques in order to provide and maintain scenic views, shade, wildlife food and cover, and other desirable features on the trail.

Vegetation may require mechanical manipulation in order to best serve the interests of the trail user. Where the growth of naturally-occurring vegetation will serve the need at hand, this should be encouraged. Native fruit- and nut-bearing species will attract wildlife and enhance trail user satisfaction. These can and should be planted where appropriate, possibly in an area where vegetative

screening is needed. For example, naturally-occurring native grape vines will rapidly cover a chain link fence and attract wildlife besides. A creative approach to the possibilities inherent in vegetative management is to be encouraged among operational personnel.

This plan recommends the establishment of grass at various locations in the corridor. This may be accomplished by a number of means, among them periodic mowing, direct seeding, and sodding. The means to be chosen will depend upon site conditions. Areas to be planted to grass should be seeded with a mix substantially similar to DOT Formula #1, or other suitable mixture which consists entirely of native species or whose growth will evolve over time to result in a nearly pure native stand, except that some exotic species may be needed in an area which is to be maintained in a lawn-like condition.

Nuisance vegetation must also be dealt with on the Gateway Segment. There are several ways to accomplish this, including chemicals, mechanical cutting or removal, and manipulation and encouragement of desirable vegetation in order to allow it to out-compete the undesirables.

Under the provisions of DNR Operational Order #59, it is the DNR's policy that non-chemical methods be used whenever possible, and that safety rather than cost be the primary consideration in selection of materials and methods when chemicals are to be used. It is anticipated that chemicals would need to be employed only in those instances where persistent or severe nuisance vegetation problems exist.

The preferred manner of control within the context of this plan is biological; in other words, the establishment of a stable native vegetational community will essentially eliminate undesirable species in

many areas. Where this end can be achieved by mere encouragement of the naturally-occurring desirable vegetational components, it is the preferred route to follow. However, this is not always possible. There may be instances in which vegetative species must be planted and cultivated, or removed mechanically or chemically, in order to achieve the trail's objectives. Where undesirable vegetation must be removed, replacement, if indicated, should be with native species whose qualities include as many as possible of the following, as appropriate (in no particular order): self-establishment of suitable height and density for view framing or barrier creation, seasonal color, flowers, wildlife food and cover, competitiveness against undesirable reinvasion, non-invasiveness where appropriate, and a suckering growth habit where spreading is desirable.

In general, the overall management direction should be one of encouragement of the growth of existing desirable vegetation and mechanical management of it to frame views, provide shade and a pleasing appearance, promote the wildlife resource, and control undesirable species. Where these objectives can be better attained via the artificial establishment of native vegetation, this should be done. The introduction of exotic species and the use of pesticides should be avoided except where their use is clearly indicated and reasonable alternatives do not exist.

6. Surface Water

Water problems are relatively few on the Gateway Segment. For the most part, the railroad grade on which it will be constructed is relatively flat and drainage has been provided for by railroad maintenance.

There are, however, several places where drainage ways have become filled with debris, and as a result, storm water flows across the treadway. In these locations washouts of varying severity have become established. In other places the ditches have become filled with silt and vegetative growth, and may need to be cleaned out in order to provide the best water management. There are in addition many culverts along the grade which should be checked periodically and kept clear. It will be important before development begins to assess the condition of the existing water management system of ditches, bridges, and culverts. This should be done by a professional person who would document the location of each structure on the trail, note deficiencies, and make recommendations to the Regional Trails and Waterways Coordinator for corrections. The best way to handle this would be to include these activities in the engineering development plans at the time of development.

The above, as well as any new work to be done, should be coordinated with the DNR's Division of Waters so as to ensure compliance with state and/or federal surface water regulations.

7. Wildlife

Despite this trail's urbanized setting, many species of wildlife can be observed along the right-of-way. To the extent possible, the existence of the trail should enhance or at least not adversely affect wildlife in the area.

The opportunity to view wildlife is an enhancement of the trail use experience for many people. Trail management should seek to attract desirable wildlife to the vicinity. This can be accomplished by erecting wood duck boxes and other kinds of bird houses, making use of

fruit-bearing shrubs as barrier plantings, and by prosecuting those who illegally harass wildlife. This should be an integral part of the trail management scheme. Dead trees which have potential for wildlife use should not be removed unless they represent a serious hazard to trail users or others.

The planning process has uncovered no critical wildlife habits which may be unduly impacted by trail construction or operation. There are, however, numerous small wetlands along the trail both within and closely adjacent to the right-of-way on which waterfowl broods have been observed, as well as other wildlife. Care should be taken to avoid disturbance to these. Pheasants are also common along certain portions of the right-of-way. As much as possible, disturbance to known pheasant cover should be avoided. Other desirable wildlife encountered should receive similar consideration, and efforts to enhance the right-of-way for them should be made where possible.

8. Historic and Prehistoric Resources

There are no known historic or prehistoric sites located within the Gateway Segment right-of-way. The State Historical Society and State Archaeologist have been asked to identify any of which they are aware in their review of this plan.

9. Bedrock and Extractive Resources

There are no known extractive resources of commercial value in or near the Gateway Segment. This fact, coupled with the fact that the vicinity of the trail is abundantly roaded, makes it unlikely that private interests will seek to use a portion of the trail right-of-way for extraction or access. In the event this does occur the master plan for the Minnesota-Wisconsin Boundary State Trail (p.p. 144-145) should

be consulted for guidance. The DNR may wish to consider the imposition of a performance bond prior to beginning extractive operations in order to assure compliance with the DNR's requirements.

10. Timber Resources

There is no known commercially valuable timber within or near the right-of-way. The value of the trees there involves their ability to provide shade, wildlife food and cover, and an esthetically pleasing appearance. However, dead and diseased trees must occasionally be removed or pruned. This may result in short-term traffic in the corridor consisting of specialized vehicles.

The Boundary Trail Master Plan (p.p. 143-144) gives some guidance regarding this situation. While short-term incursions by other entities to deal with diseased trees should not be a problem, the DNR should inform the appropriate governmental units that it expects to be consulted before such incursions occur, so that the DNR can take such action as it deems necessary to protect trail user safety and the trail itself from damage.

11. Soils

Soil limitations are not expected to be a problem for the trail development process on the Gateway Segment, since it is to be built on a railroad grade which is itself in good condition. The few problems which do exist relate more to drainage problems than soil limitations.

Relevant soil surveys and data should be consulted prior to construction, and professional expertise sought if problems do arise.

12. Maintenance and Operation

Good maintenance will be critical to the success of the Gateway Segment. This is particularly true because of the trail's location in

an urbanized setting. A clean and otherwise well-maintained trail will attract users and sell itself, and will also discourage littering and vandalism. Proper levels of maintenance as well as enforcement will be necessary to discourage the presence on the trail of undesirable elements who would discourage legitimate users from utilizing the trail. The Regional Trails and Waterways Coordinator will be responsible for ensuring that needed tasks are accomplished and problem areas addressed.

Maintenance includes, but is not limited to, trail surface repair, water management, upkeep of support facilities, resurfacing of parking areas, windfall removal, litter pickup, and winter grooming.

Operation of the trail includes management of natural and cultural resources along the trail, monitoring, responding to user and adjacent landowner concerns, information dissemination, and law enforcement. Taken together, maintenance and operations involve activities which directly affect the safety, well-being, and quality of experience of trail users. It will, therefore, be important to assure that adequate funding for manpower and equipment be provided so that necessary maintenance and operations activities can be carried out in a timely manner. This will be especially important since the location of the Gateway Segment will make it highly visible to the public, as well as highly used by them.

RECREATION MANAGEMENT

1. Enforcement

The acceptance of the trail by local communities and adjoining landowners will depend considerably on favorable relations between

adjoining landowners and trail users. To achieve this objective the state has established management policies and specific rules and regulations to govern the use of recreational trails (Minnesota Rules 6100.300).

The DNR implements these rules and regulations by the following approaches:

1. Public education.
2. The establishment of volunteer safety patrols.
3. The enforcement of Minnesota Rules 6100.300 by DNR regional conservation officers.
4. Other supplementary enforcement.

Public Education. Special emphasis should be given to informing the public about rules and regulations on state trails. This is presently done by posting signs on trails to indicate designated use and by posting the trail rules at all designated trail accesses and waysides. This will be done where appropriate on the Gateway Segment as well. In addition, a trail user's code should be developed which incorporates layman's language and a positive tone which would encourage voluntary compliance. Such a trail user code could then be posted at trail support facilities and also be printed on all trail maps and brochures.

Such a code could include but would not be limited to the following items:

1. Travel only within the trail right-of-way.
2. Use the trail only for its designated uses (list uses).
3. Consider adjacent landowners' rights to privacy; don't be unduly noisy, especially at night.
4. Carry out all garbage.

5. Light campfires only in designated areas.
6. Leave flowers and other plants for others to enjoy.
7. Protect and do not disturb wildlife.

Emphasis should be placed initially on voluntary compliance through public education and by reducing the tendency to violate through trail design and management. Peace officers and others who observe violations can so inform individuals and encourage them to proper behavior. Finally, citations can be issued by peace officers for blatant or repeated infractions.

The Regional Trails and Waterways Coordinator should be alert for opportunities to make presentations about the trail and the DNR's policies regarding it to civic groups as well as elementary and secondary school classes.

An additional tool for enforcement of trails rules and regulations would be the "Landowner's Handbook" identified in the statewide DNR Trail Plan. This handbook will, when it is developed, be given to each adjoining landowner and will include the phone number of the Regional Trails and Waterways Coordinator to further aid the adjoining landowner so that violations can be dealt with in a more expeditious manner.

Volunteer Safety Patrols. The Regional Trails and Waterways Coordinator may wish to consider the establishment of volunteer safety patrols made up of lay citizens. These people could serve as sources of information and emergency first aid for trail users, and could serve the purpose of enhancing the visibility of an official presence on the trail. Such patrols should, if utilized, be established according to the following guidelines:

1. They should be clearly identifiable as patrollers via a DNR-issue patrol pack (containing emergency necessities, perhaps), a badge, or standard article of clothing.
2. They should be required to complete the routine Red Cross courses on CPR and First Aid.
3. They should volunteer for specified minimum (say, 30) hours per year, and patrol as per a schedule set by the trail manager.
4. Their duties should involve user safety, emergency first aid, emergency repairs and maintenance to the trail itself, and information services. They should be trained to identify infractions and report them to proper authorities.
5. They should be at least 16 years of age.
6. They should be under the direct supervision and control of the Regional Trails and Waterways Coordinator, or the Trail Manager if the trail has one.
7. If a trail user fee is ever established on the Gateway Segment, patrols should be issued a pass free of charge for the season in which they work.

Those individuals charged with the enforcement and safety duties on the trail should be impressed with the notion that their primary function is to be of service to trail users and to encourage voluntary compliance with applicable laws, rules, and policies.

DNR Conservation Officers. The DNR conservation officers, in cooperation with local law enforcement agencies, will be responsible for the enforcement of Minnesota Rules 6100.300. The Ramsey County sheriff's office and community police departments along the trail will be asked to aid in the control of trail use. Funds to assist local law enforcement agencies may be available through the DNR.

Other Supplementary Enforcement. Minnesota Statutes, 1978, Section 84.029, as part of the Outdoor Recreation Act (ORA), provides that each DNR employee, "while engaged in his employment in connection with such recreational areas, has and possesses the authority and power of a peace

officer when so designated by the commissioner" (emphasis added). In addition, Minnesota Statutes, 1978, Section 84.083, subdivision 1, gives the commissioner of natural resources the authority to delegate his duties to any specific DNR employee.

Staff members of the Trails and Waterways Unit presently do not have the authority or training to enforce rules and regulations on state trails. The DNR's Interdisciplinary Law Enforcement Task Force studied this situation in 1984 and made a number of recommendations to be followed if and when Trails and Waterways Unit personnel were to be given law enforcement authority. The DNR has adopted these recommendations. The Task Force report, dated July 1984, should be consulted for details.

The DNR's Policy Directive 22 (interim Operational Order 21) gives DNR employees, while engaged in their employment, the authority to write infractions of the rules and regulations on Conservation Officer Form 145. (The operational order and Form 145 are in the process of being revised at this writing.) Such a report constitutes a record of evidence admissible in court. Employees doing this must witness the violation and are advised to understand the constitutional rights of individuals.

2. Monitoring

The monitoring of use on the trail is of utmost importance. Only through periodic monitoring will the DNR learn how the trail is used, who uses it, where overcrowding occurs, where potential conflicts exist and what the future uses of the trail may be. Only through the accumulation of use data will it be possible to make valid decisions on the management of the trail.

The DNR's Office of Planning developed a monitoring program for state trails in 1980. This program is presently being administered by the DNR-Trails & Waterways Unit on the Heartland, Sakatah Singing Hills, Douglas and Luce Line State trails. The monitoring is done in the form of a survey and attempts to determine users' ages, type of use, direction the user is headed, residence of user, hours of use, one-way use or round-trip use, first-time user or repeat user and the time of entry. Other information that could be derived from those surveys via additional questions is:

1. User demographic information.
2. Number of users by weekday and weekend day by season.
3. Average group size.
4. Average length of trip.
5. User ability.
6. User satisfaction.
7. Conflicts between trail users.
8. Demand for uses (e.g., snowmobiling) that are not accommodated over the entire alignment.
9. Need for additional support facilities.
10. Need for maintenance, and correction of hazards.

The monitoring program, although developed in the DNR's Saint Paul office, will be implemented by personnel in the field. The Regional Trails and Waterways Coordinator (see Maintenance and Operations) could coordinate efforts along the Gateway Segment.

Use monitoring is also being performed in the Saint Paul office. Surveys are sent out periodically to gauge use levels, user satisfaction

and trends. Results are computerized and reported periodically. This effort is expected to continue indefinitely.

3. Information and Promotion

A comment commonly heard when the public is consulted regarding the DNR's state trail program is that significant portions of the public are unaware of many trail opportunities that already exist. It will thus be important for the DNR to make every reasonable effort to make the public aware of the Gateway Segment's existence. Official designation, feature articles and other coverage by the news media, and dissemination of printed materials to, and presentations before, user groups, schools, civic groups, and other organizations would assist in the promotion of the trail. Though the trail will sell itself as use levels increase, a continuing promotional program will be necessary.

Since the trail will not be developed fully for a number of years, initial promotional efforts should focus on the use scenarios developed earlier in this section and in the IMPLEMENTATION section. A strong early effort to acquaint potential users with the spectrum of weekend and longer recreational routes (of which the Gateway Segment will some day be a part) available in the area will pay dividends when the trail is completed. This topic is considered in detail in the IMPLEMENTATION section.

INTERPRETATION

Interpretation has been defined as "an educational activity which aims to reveal meanings and relationships through the use of original objects by firsthand experience and by illustrative media rather than simply to communicate factual information" (Tilden 1967). Its author is not entirely satisfied with it, but it is a good definition because it recognizes implicitly that the entire sensory experience of the trail user is interpretation. Interpretation is not, in its best form, merely a few signs or displays pointing out historical landmarks or events. Instead it is the attempt to convey knowledge and understanding of the totality of influences which make a region and its people what they are.

As indicated earlier, a faithful presentation of the essence of the local area is a key objective of the State Trail system, particularly those trails included in the Explore Minnesota Collection. In this sense it is arguable that the Gateway Segment itself and its ancillary facilities comprise a major interpretive facility for the Twin Cities Metropolitan Area Recreational Landscape.

In a larger sense, the Minnesota-Wisconsin Boundary State Trail, of which the Gateway Segment is a part, is in turn a major interpretive facility for the Recreational Landscapes through which it passes. Both the Boundary Trail and its Gateway Segment will be so developed as to serve as interpretive vehicles through which the trail user is allowed to fully experience the unique Minnesota Recreational Landscapes which they occupy.

This experience of the local ambience takes place on a number of levels. One such level is the subliminal/emotional response to such

stimuli as closeness to flowing water, the sight of a brood of ducklings on a pond, or the sensations resulting from walking an isolated stretch of trail at daybreak. Another such level of experience is the purely physical -- the pleasurable reliance on one's own strength and stamina to travel from point to point at one's own pace. This imparts a clear understanding of the concept of distances which is impossible with motorized travel, as well as a sense of the rhythm of the land being traveled: it may be flat, rolling, mountainous, hilly -- the trail traveller experiences it intimately, and understands the land and the forces which shaped it better because of it.

Thirdly, the level of sensation and experience to which this section is devoted can be broadly described as the intellectual. For there is more to the region than its ability to satisfy the physical and subliminal human. The Metro Area Recreational Landscape is a rich cultural and historical tapestry of objects, events, and people which made it what it is today. A fully developed sense of the present-day Metro Area is impossible without a full understanding of the forces and events that shaped it.

Often, it is only the third, or intellectual, sensory level which is dealt with in interpretive programs. However, the others need to be recognized and affirmatively provided for, if the interpretive goals of the State Trail system and the Explore Minnesota Collection are to be met. Those goals involve allowing trail users to fully experience the various and diverse faces of a highly heterogeneous entity -- the State of Minnesota -- in a self-paced recreational travel setting. Without a thorough-going treatment, the aim of the trail to accurately give its users a sense of the region may miss the mark.

By itself, the Gateway Segment can not convey a complete sense of the region in which it lies. The segment can interpret only the urban and suburban faces of the Metro Area Recreational Landscape; there is, however, another side to this Landscape, the rural. The Washington County segment must be utilized for this purpose.

This again points up the fact that the Gateway Segment is not a discrete entity -- it is a small part of a much larger facility. Interpretation on the Gateway Segment is necessarily a function of interpretation on the Boundary Trail as a whole.

It has been written elsewhere that people in general require a "sense of place" to feel comfortable. As Lynch (1976) notes:

" . . . the identification of places . . . is . . . a source of emotional security, pleasure, and understanding. Orientation in space (and time) is the framework of understanding. We have powerful abilities for recognizing places and integrating them into mental images, but the sensory form of those places can make that effort at understanding more or less difficult" (emphasis added).

Thus it is that interpretive programs must be active and affirmative. The DNR can not rely on the trail alignment alone to impart the message but must make creative use of media, facts and legends, vegetative manipulation for view framing, and other items in order to reinforce the interpretive message. Emphasis is on the word "creative." The aim is to allow the trail traveler, once s/he has completed the trail trip, to "know" the region traversed. As Lynch continues:

" . . . we take delight in physically distinctive, recognizable locales, and attach our feelings and meanings to them. They make us feel at home . . . Place character is often recalled with affection; . . . People are pleased to 'know' a great city or understand its history. Indeed, a strong sense of place supports our sense of personal identity" (emphasis added).

To develop the Gateway Segment (and the Boundary Trail as a whole) in such a way as to impart a strong "sense of place" will be, almost by definition, to impart the highly desirable "sense of the region" which is the common goal of the State Trail and Explore Minnesota systems. It is thus not desirable to completely insulate the trail and its users from such sights as industrial and commercial districts or from such sound sources as street traffic, jet planes and people. These are a part of the region in which the trail lies and to exclude them is to deny a part of the trails' reality. On the other hand, proper trail management seeks to alleviate sensory fatigue by assuring that no stimulus is overrepresented. To properly develop and manage the trail and its environment is to faithfully portray the ambient conditions without overdoing any one sensory image type.

Interpretation is, then, considerably more than the odd sign with a brief historical message. It is a well-rounded presentation of and sensitivity to the totality of influences which shaped the region and had the present situation as their result. It is, by definition, quite a complex task.

The subject of interpretation for the Minnesota-Wisconsin Boundary State Trail (and the Gateway Segment of which it is a part) will be dealt with separately in detail in an interpretive plan, to be appended to the master plan. It will show how the various factors discussed above will be portrayed along the trail in order to excite interest, to educate, and to imbue trail users with a sense of the region -- the "sense of place" described by Lynch (1976) as so important to user pleasure and understanding.

The ultimate aim, of course, is to make the trail experience an interesting, educational and satisfying one for the user. Scenic views, interpretive facilities, and a sense of isolation in some areas and incorporation into the human community in others, should be creatively employed in order to instill in the trail user a strong sense of place and integration into the landscape. If this is done effectively the trail user will experience the region as it truly is; s/he will come away from the experience not with vague recollections but with a strong sense of the region and of having been for a time an integral component of it.

IMPLEMENTATION

DEVELOPMENT SCHEDULE

The implementation of this plan has been programmed as a series of priorities. Priorities were set based upon professional perceptions of how best to provide for orderly development of the Gateway Segment, dealing with critical problem areas such as washouts first and then proceeding with those improvements which will make the trail useable as soon as possible. Because the Gateway Segment and Washington County Segment make up a continuous trail experience, it is desirable that they be developed simultaneously, if funding permits.

It must be recognized that, while the DNR has committed itself to development and operation of the Boundary Trail and its Gateway Segment, funding for development can not be precisely predicted on an annual basis since it comes from legislative appropriations. For this reason, no attempt was made to devise annual spending plans for the Gateway Segment. Instead, development tasks were prioritized in a two-dimensional matrix (Table 1) (inside back cover) so that they can be taken on in a coherent order as money becomes available. Since the purpose of the prioritization scheme is to correct problems and make the trail useable as soon as possible, it will be important for maximum convenience to the public that projects be completed as much as possible in the order specified.

PHASING SCHEDULE

The expenditure schedule for the Gateway Segment is tied to a phasing schedule (Table 2). The latter provides for an orderly and steady increase in the level of resource management, orientation, interpretation, and marketing efforts expended by the DNR as construction of the trail proceeds. A close coordination between the two schedules assures that user traffic is well provided for as early as feasible. Of particular importance, the phasing schedule provides a framework for steadily intensifying marketing efforts for the trail as each phase of construction is completed. It is important that the public understand that funding and manpower limitations require that trails often take years to go from initial conception to final completion; the expectation often is that a year or two after acquisition will see the completion and grand opening of the trail. The phasing schedule, by providing for a steady intensification of management and marketing efforts appropriate to the current level of development, allows convenient and enjoyable use and keeps the public's expectations to a level which can be met.

This implementation plan for the Gateway Segment has been developed with the above in mind, with due regard for the fact that the present legislative emphasis on tax and spending reductions will mean a protracted development schedule for the Gateway Segment. Table 1 summarizes the timing of development phase completion for each trail use. Completion of each development phase triggers the marketing and other management procedures shown in Table 2.

STATE TRAIL DEVELOPMENT PHASES

Guidelines for the coordinated development, operation, and marketing of trails to ensure a consistently high quality product image . . . while encouraging appropriate interim use.

DNR Trails & Waterways
10/14/83

DESCRIPTION OF PHASES		MINIMUM REQUIREMENTS OF CLIENTELE			INTERPRETATION
PHASE	APPROPRIATE CLIENTELE (each phase retains clientele from all previous phases)	1. CONSTRUCTION	2. RESOURCE MANAGEMENT	3. ORIENTATION*	4. INTERPRETATION*
A ACQUISITION	Adjoining landowners; incidental local citizens	A1. Land acquisition; minimal prudent treadway maintenance; emergency fencing; removal of hazards.	A2. Emergency resource management (e.g. to solve or prevent erosion, plant disease, and hazards to public safety.	A3. Boundary marking and signing necessary for public safety.	A4. Series of articles in local newspapers & in landowners newsletter to maximize awareness, appreciation & stewardship of trail.
B PARTIALLY OPEN (Less Than 2 Day)	Local citizens; incidental tourists	B1. Treadway constructed of approx. 1/2 day length; provide landowner privacy enhancements & interim parking.	B2. Landowner privacy enhancements as necessary.	B3. Interim trailhead signs and reassurance markers (e.g. ribbon or paint blazes); trail map with "under development" Call 800-... for info.	B4. Interpretive overview on map.
C OPEN (2 Day)	Adventuresome statewide trail users	C1. 2 day treadway constructed; provide interim parking & campsites.	C2. Spatial experience enhancements via vegetative management.	C3. Interim trailhead signs; permanent reassurance markers as necessary; permanent intersection signs; map still says "under development".	C4. Draft of raw interpretive data made available.
D COMPLETED (2 Day Trail)	Statewide general population & tourists	D1. Permanent parking, waysides & rest areas, trailheads, and campsites w/water developed.	D2. Botanical & historical enhancements.	D3. Permanent trailhead orientation kiosks; permanent distance and services signing; "Service Guide." Remove "under development" from trail map.	D4. Interpretive trail guide; interpretive overview on trailhead kiosks.
E FULL AUTHORIZED LENGTH COMPLETED	Long-distance trail users (depending on length & trail use)	E1. All of the above developed along entire authorized length of trail.	E2. All of the above along entire authorized length of trail.	E3. All of the above developed along entire authorized length of trail.	E4. All of above plus interpretive enhancements (e.g. on-site interpretation plaques, introductory cassette tapes) on entire trail.
					<ul style="list-style-type: none"> • News release describing what's being done, plans & schedule. "More info call . . ." • Show on state map "under development" • Start landowners' newsletter
					<ul style="list-style-type: none"> • Departmental designation • Articles with map in local papers; make clear it is still under development • Send similar flyers to chambers of commerce; resorts • Add to map order form w/note: "under development"
					<ul style="list-style-type: none"> • Mn/DOT signs up • Incidental coverage in metro newspapers
					<ul style="list-style-type: none"> • GRAND OPENING • Remove "under development" from order form, trail map & state map • Feature articles in all market areas (& advertising) • market to tour operators, etc.
					<ul style="list-style-type: none"> • continue ongoing marketing program

MASTER PLAN COMPLETED

*Primitive or wilderness trails will require less refined orientation and interpretive development.
 Notes: (1) The progression of a trail thru the 5 phases is charted by use, in summary form in the master plans budgets. (2) Maintenance and enforcement functions, while necessary to have in place throughout the 5 phases, are not included in the above chart. (3) Some work may have to begin in prior phases in order for it to be effectively completed by the end of the phase for which it is "required" (e.g. vegetative management).

Table 2 State Trail Development Phases

DEVELOPMENT PRIORITIES

As can be seen from the expenditure schedule, the highest priority development actions involve repair of hazards and erosion problems, as well as bridge decking and railing to make the grade useable for foot traffic.

The eroded areas and washouts will be permanently repaired in the course of routine blading and shaping operations which are the preparation for paving. It will be important to affirmatively provide for proper drainage in the course of this work in order to obviate long-term problems.

Next in priority generally are those developments which require vegetation plantings. Doing these early gives the plantings time to grow to functional size by the time overall development is completed and significant use exists on the trail.

Most hardened projects, such as the parking lots, are prioritized relatively low both because they are relatively expensive and because they will not be needed much before the trail is completely developed.

The phasing schedule (Table 2) recognizes the fact that the trail's clientele is largely made up of local people during the initial development phases. Once the Westminster Street bridge is decked and railed and the washouts are repaired, development phase A can be said to be completed. The management activities called for at that stage in the phasing schedule should then be initiated. The phasing schedule should continue to be followed as development proceeds.

INTERIM USE PATTERNS

Use of the trail prior to completion will undoubtedly take place, although it will not be on a large scale and will involve few, if any, people from outside the local area. The DNR's wisest course is to plan for this interim use so as to provide those services initially desired by the public and so as to encourage orderly progression and development of those use patterns which will exist after the trail is completely developed.

Another consideration is that motorized uses have become established on the trail, though these are largely prohibited by law. To a certain extent, the onset of development activities with attendant presence of DNR personnel in the right-of-way will discourage such traffic. However, enforcement activities should be an ongoing part of the picture as development proceeds. The aim should be to eliminate illegitimate uses from the corridor by the time of development completion. Probably the single most effective procedure in this regard will be for DNR vehicles and personnel to be visible on the trail as much as possible. Signing will be very important also.

Also effective in reducing illicit uses is the presence of legitimate users on the trail. Bridge decking and railing and washout repair will encourage such use.

MARKETING STRATEGY

It is important to remember that the Gateway Segment is an integral part of the Minnesota-Wisconsin Boundary State Trail, and to a certain

extent its marketing strategy should be tied to that of the Boundary Trail as a whole. At the same time the Segment's location will serve to maintain its individual identity as a recreational and commuting facility in its own right. Promotional efforts as per the phasing schedule should recognize the inherent relationship while highlighting the potential of the Gateway Segment itself. Marketing this trail will be a complex job and will require more or less continuous attention. The public should be kept informed of progress as development proceeds, as provided in the phasing schedule.

MAINTENANCE AND OPERATIONS

The cost per mile of maintaining the Gateway Segment will be somewhat higher than is the case on other state trails, primarily because its urban location will result in high levels of use, which will lead in turn to somewhat higher levels than normal of facility deterioration, grooming frequency, and littering. The Regional Trails and Waterways Coordinator is ultimately responsible for on the ground management of facilities. However, since management responsibilities for trails and waterways facilities in the Metro Region have steadily increased in recent years, a full time trail manager for the Metro Area position of the Boundary Trail will be necessary in order to assure a proper level of management.

In order to arrive at an estimated annual cost for maintenance on the Gateway and Washington County segments of the Boundary Trail, the cost of maintaining a Natural Resources Specialist 1 position was used for calculation purposes. This cost is about \$25,000.00 annually.

Further, the DNR's experience is that labor costs make up about 70 percent of the per-mile cost of maintenance on an annual basis. This means that with a Natural Resources Specialist 1 trail manager, annual maintenance on the entire Soo Line railroad grade would cost the DNR about \$36,000.00 per year. It must be emphasized, however, that these numbers are for discussion purposes only, to give some idea of what annual maintenance costs will be.

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